

Quick Start Guide for Azure (Linux)

Arcserve® Live Migration

arcserve®

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<https://www.arcserve.com/support>

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- You can open a support ticket. By opening a support ticket online, you can expect a callback from one of our experts in the product area you are inquiring about.

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Chapter 1: Introduction

Arcserve Live Migration simplifies the process of migrating data, applications, and workloads. It allows you to move virtually any type of data or workload to cloud, on-premises, or remote locations, such as the edge, with support for virtual, cloud and physical systems. An assured validation of the migrated workload completes the process of enabling customers to continue operations without risks of losing data.

You can easily migrate:

From	To
On-premises	Cloud
Cloud	Cloud
Cloud	On-premises
Physical	Physical
Physical	Virtual
Virtual	Virtual

Live Migration provides the following:

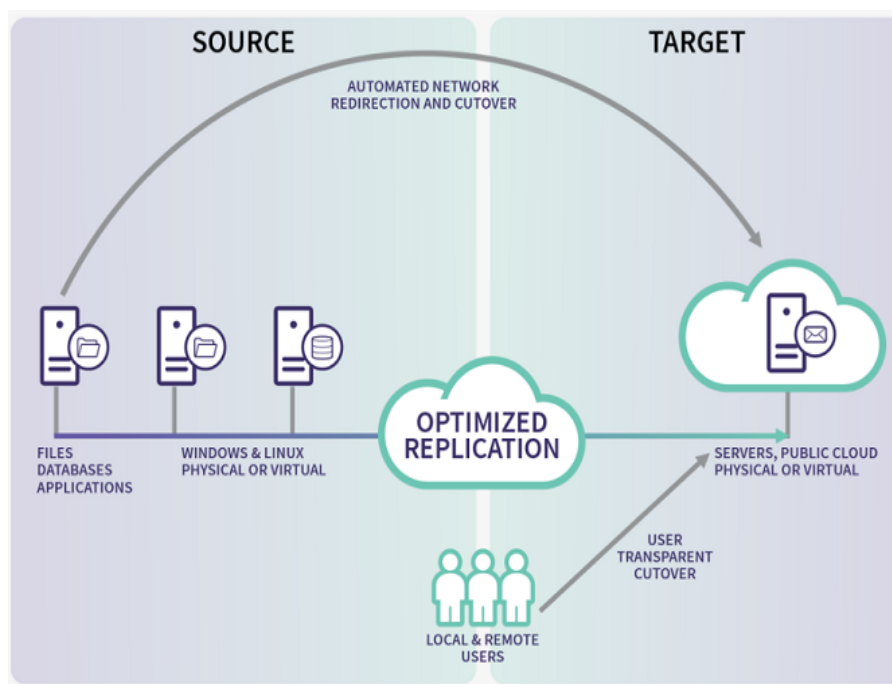
- Unlimited use of the Arcserve Live Migration technology enhanced by Arcserve Continuity Suite.
- Every source that you plan to migrate requires 1 license.
- Seamless access to the entitled software for a period of 90-days.
- On expiry of the license, new scenarios cannot be started, but the existing ones will continue.
- For each license, Live Migration provides free of cost technical assistance for two incidents.

Note: Arcserve currently does not provide professional services to help you with implementation, deployment, and any other migration services.

Overview

Arcserve Live Migration automatically synchronizes files, databases, and applications on Windows and Linux systems with a second physical or virtual environment located on-premises, at a remote location, or in the cloud. After synchronization, changes are replicated in real time to ensure the source and target are in sync prior to the migration.

Encryption enables secure data transfers between local systems and remote locations without the need for a VPN, and automated network redirection makes the switchover process seamless with push-button cutover to ensure availability to the new production environment.



Your typical migration process includes the following steps:

- [Install Components on Master](#)
- [Configure Microsoft Azure](#)
- [Provision VA on Microsoft Azure](#)
- [Install Engine on Replica](#)
- [Create Full System Scenario for Microsoft Azure](#)
- [Perform Assured Recovery Testing](#)
- [Perform Cut off/Switchover](#)

Terminologies

This document uses the following terminologies:

- **Virtual Appliance:** This is a virtual machine that acts as the Replication/Migration proxy server (install the Arcserve Continuity Suite Engine here and deploy on the hypervisor/cloud destination). If you are using a Hyper-V virtual platform, the Virtual Platform Hostname/IP field is disabled (appears dim).
- **Control Service:** Control Service is a management component of Arcserve Continuity Suite. It is a Windows based service that must be deployed first. It hosts web-based information portal and rich Management UI, which is used for creating and monitoring migration scenarios.
- **Engine:** Replication Engine is a background service that moves data from source to destination during migration. Install the Engine on any source that you plan to migrate. You may use the Remote Installer feature to mass deploy Engines.
- **FSHA:** Full System High Availability (FSHA) is a scenario type that allows replication and fail-over of full server. This scenario type is used for migrating full systems.
- **Management UI:** A UI that you use for creating and managing replication/migration scenarios. The Control Server hosts the Management UI. To start the Management UI, log into the Management Portal.
- **Master (Source):** A host/computer that you want to migrate. You can migrate the whole system using the full system migration scenario or the host containing the applications.
- **PowerShell:** Arcserve offers PowerShell Command Line Interface as an alternative if you do not want to manage the replication process using the Manager graphic user interface.
- **Replica (Target):** In case of full system migration, VA (replication proxy) serves as a Replica. Upon completion, VA spins off new VM containing replicated disks or data. For application-based scenarios, the VA hosts and runs replicated application and data.
- **Scenario:** A configuration unit describing migration job/task. You can create and manage scenarios using rich management GUI or PowerShell CLI. Scenarios contain key information about replication/migration jobs to be performed.

- **Switchover:** The cutover to the newly migrated workload from where the operations can begin.
- **Synchronization:** The process of making the set of files identical on the Master and Replica servers. It is usually necessary to synchronize the Master and Replica as the initial step of a replication/migration scenario.
- **Virtual Platform Host:** The machine that hosts the Appliance VM, which acts as a Replica server. Based on the scenario type, it acts as a local hypervisor or cloud platform (AWS or Azure).

Requirements

Before you migrate, make sure to meet the following requirements:

- Arcserve Live Migration supports both Windows and Linux operating systems for Full System migration scenarios. If the source host is Windows, then the Virtual Appliance (VA) must be Windows; if the source host is Linux, then the VA must be Linux as well.

Note: Before deploying Arcserve Live Migration scenarios, see [Limitations](#) in Release Notes.

- When migrating workloads to Azure, corresponding Azure cloud credentials must be registered in Arcserve Continuity Suite Management UI.

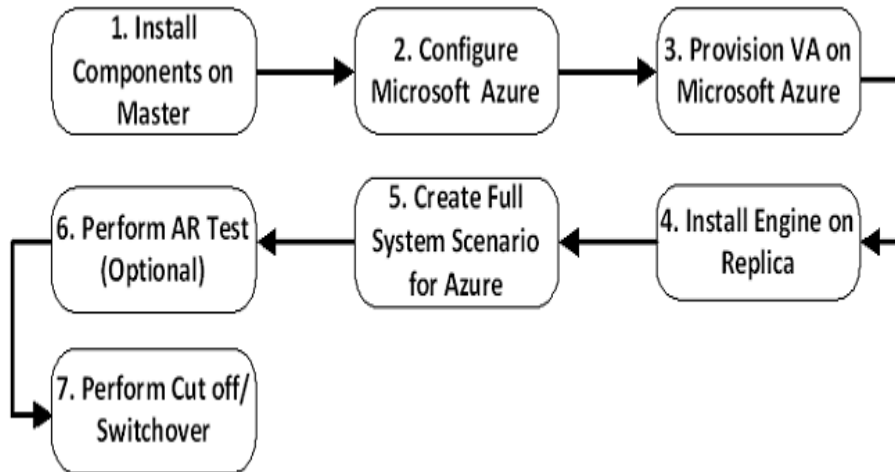
Software Compatibility

For more information about compatibility, see [Compatibility Matrix](#).

Note: Make sure that your source OS and application versions are explicitly listed on the support matrix.

Chapter 2: Perform Live Migration

The following flowchart provides the Live Migration process given in this document:



Install Components on Master

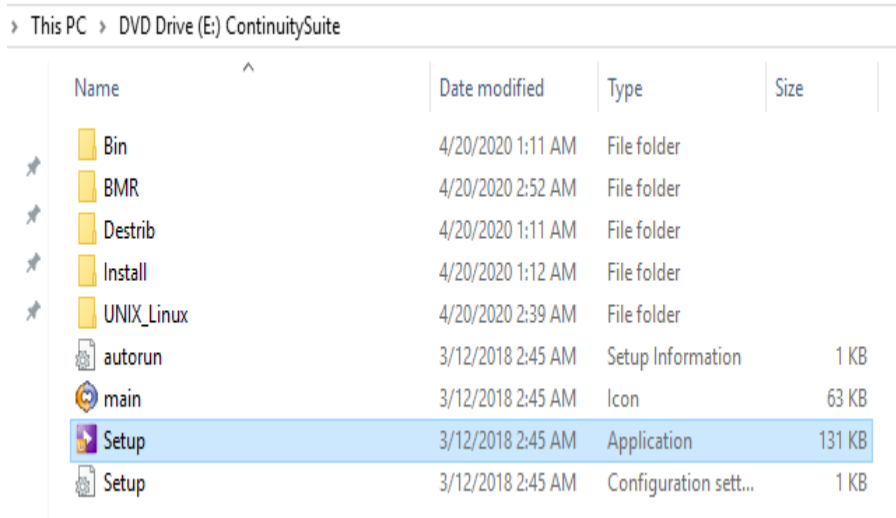
This section describes how to install the Arcserve Continuity Suite Control Service and Engine on Master.

Installing Control Service

The Control Service component functions as the single-point-of-control that contains the entire dataset of the existing scenarios. Control Service communicates with the Engines and the Managers. It is responsible for the management of all scenario-related-tasks such as creation, configuration, monitoring, and running of the scenarios.

Follow these steps:

1. Download [RHA iso for Continuity Suite](#), and then open the folder.
2. From the mounted directory, double-click **Setup**.



File Explorer window showing the contents of a DVD Drive (E:) named ContinuitySuite. The 'Setup' application is highlighted.

Name	Date modified	Type	Size
Bin	4/20/2020 1:11 AM	File folder	
BMR	4/20/2020 2:52 AM	File folder	
Destrib	4/20/2020 1:11 AM	File folder	
Install	4/20/2020 1:12 AM	File folder	
UNIX_Linux	4/20/2020 2:39 AM	File folder	
autorun	3/12/2018 2:45 AM	Setup Information	1 KB
main	3/12/2018 2:45 AM	Icon	63 KB
Setup	3/12/2018 2:45 AM	Application	131 KB
Setup	3/12/2018 2:45 AM	Configuration sett...	1 KB

3. On the Arcserve Continuity Suite installation wizard, click **Install Components**.

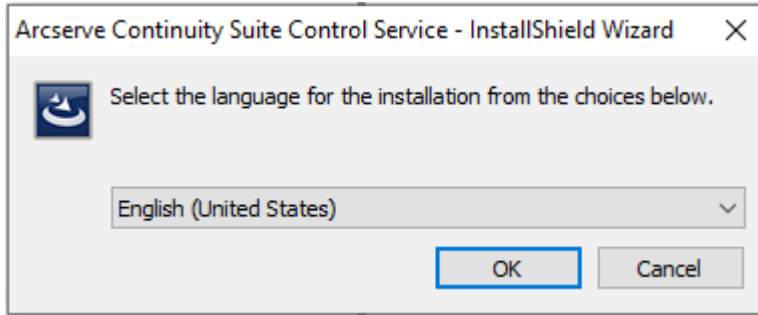


The wizard displays the components.

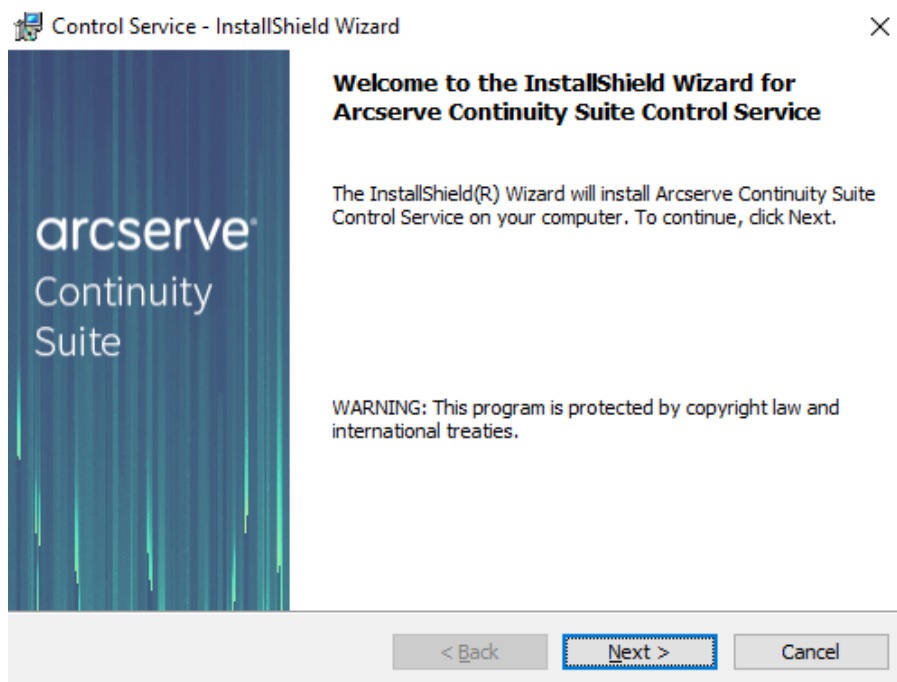
4. Click **Install Control Service**.



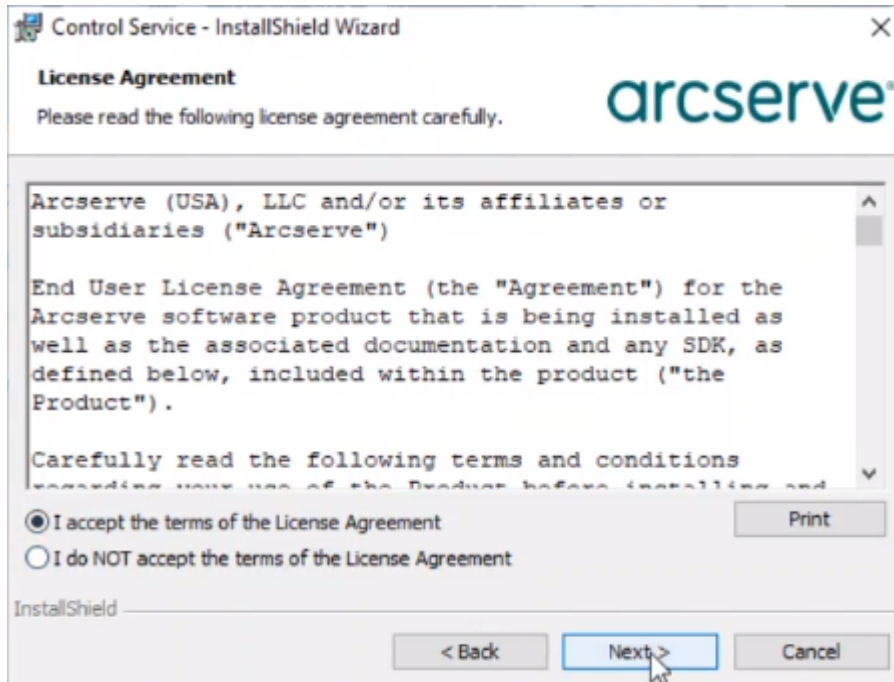
5. On the Arcserve Continuity Suite Control Service - InstallShield Wizard, from the drop-down list, select your preferred language, and then click **OK**.



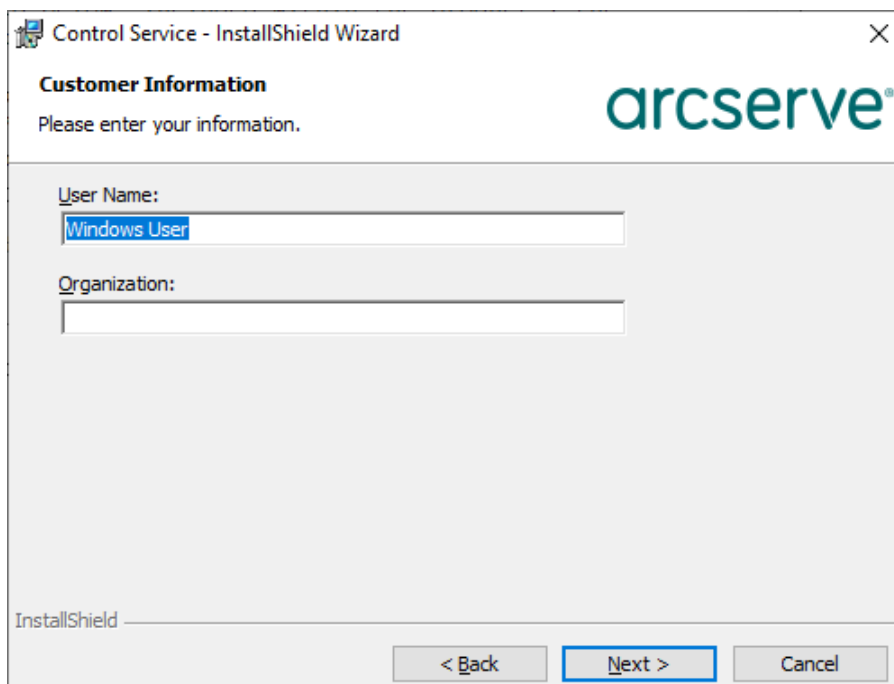
After the initial process is complete, the Welcome page appears.



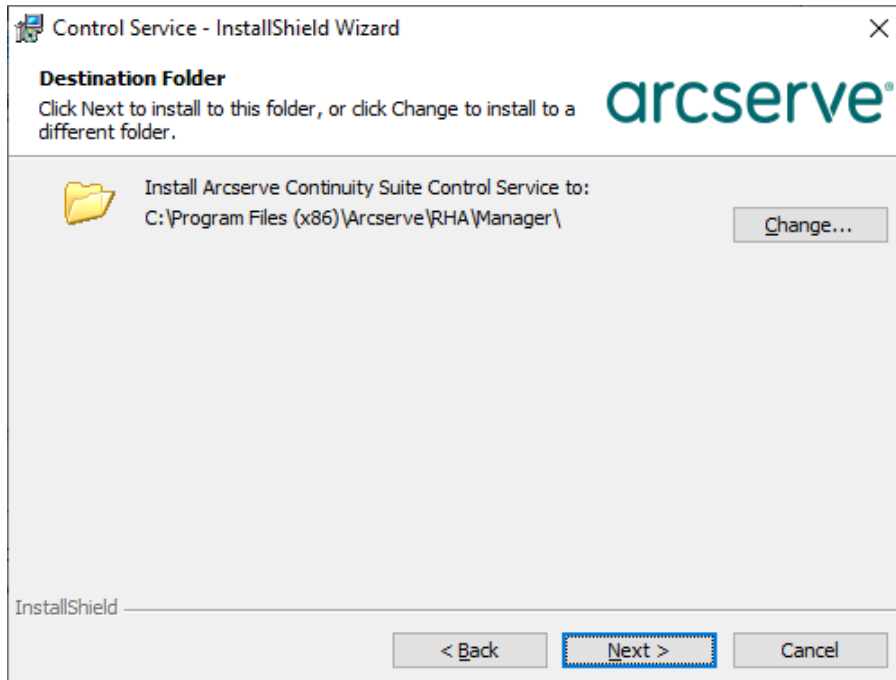
6. Click **Next**.
7. On the License Agreement page, read the terms of the License Agreement, select the **I accept the terms of the License Agreement** option, and then click **Next**.



8. On the Customer Information page, enter a user name, and then click **Next**.



9. On the Destination Folder page, retain the defaults, and then click **Next**. To change the destination folder, click **Change**.

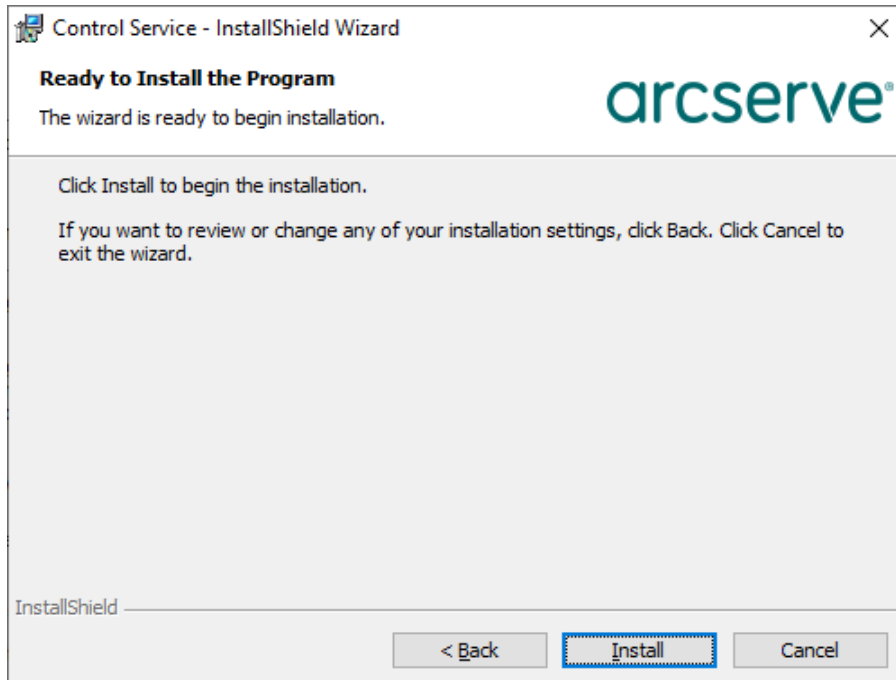


Note: The default installation directory is: *C:\Program Files (x86)\Arcserve\RHA\Manager*. All executables, DLLs and configuration files are located within the INSTALLDIR.

10. For the upcoming screens, retain the defaults, and then click **Next** to continue.

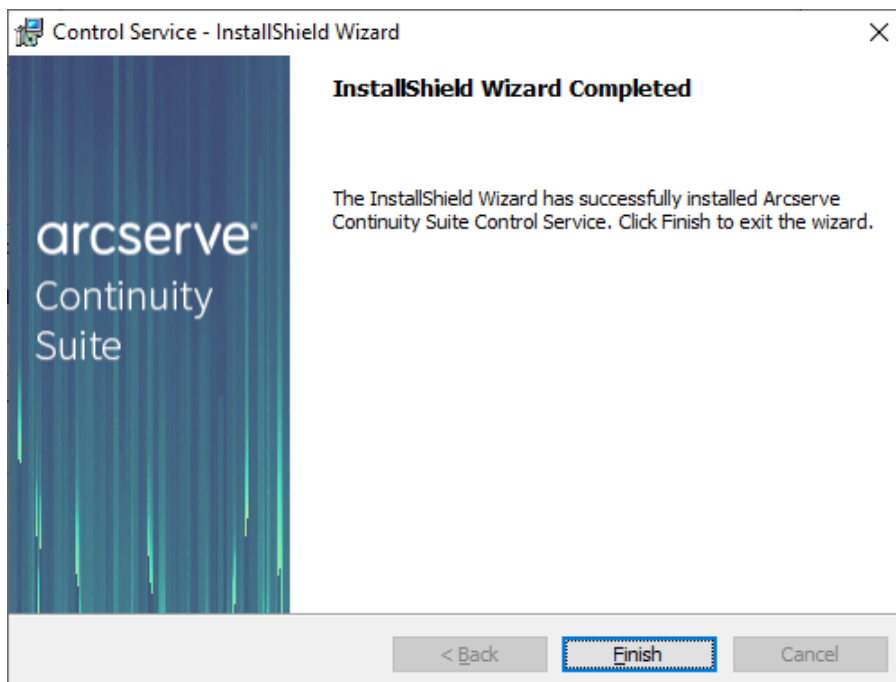
Note: For more information about how to configure SSL Configuration, Service Logon Information, and Control Service Role, see [Install a Control Service for a Standard Operation](#).

11. On the Ready to Install the Program page, click **Install**.



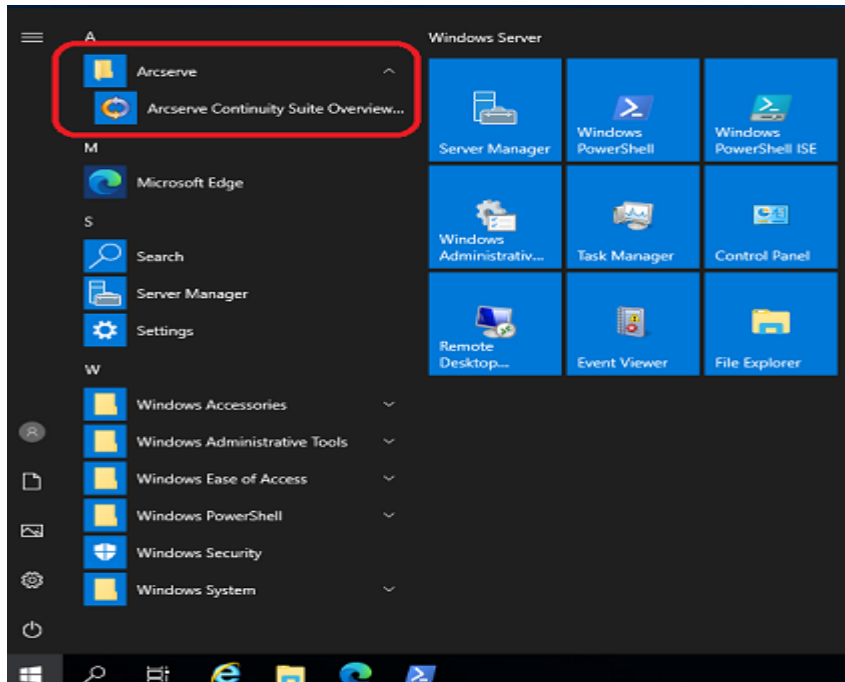
Note: Click the **Back** button to return to the previous pages and change any configuration as needed.

12. After installation is complete, click **Finish** to close the wizard.



The Arcserve Continuity Suite Control Service is installed.

13. To open Control Service in a web portal, go to **Start > Arcserve > Arcserve Continuity Suite Overview**.



The web portal opens in a browser.



Installing Engine

Make sure that the Engine component, which is a service, is running before you start any scenario. Install Engine on every server participating in any given scenario such as the Master (source) and Replica (target) hosts. Each Engine supports both Master and Replica functionality in addition to both Replication and High Availability scenarios. It may participate in multiple scenarios and serve in a different role for each scenario. You can install Engines one by one locally on each host, or concurrently through a remote installer on numerous hosts. You can also install it during scenario creation if needed.

Follow these steps:

1. To extract installation package and start the engine installation, copy *arc-serverha.tar* to your host, and then run the command as a root user.

Note: The script in the following example uses the command for installation of RHEL 8 package.

```
tar xvf arcserverha.tar && tar xzf arcserverha-18.3-0.7024.rhel8.tgz && cd arc-serverha && ./install.sh
```

The installation script for the Continuity Suite Engine is *install.sh*. When you run this script without any option, it initiates the interactive installation process. For silent or non-interactive installation, use *install.sh -q* or *install.sh -y*. The following illustration lists additional customization options that you can use with *install.sh*.

```
Usage:
  install.sh [options]
Where options is
  -l, --license=<Agree/n>   Agree to license*
  -c|g, --caarha-group=<Y/n> Create caarha group if it does not exist.
  -o, --enable-oracle=<y/N> Enable oracle support (default is no)
  -u, --oracle-user=<user>   Specfiy oracle user (req'd for oracle support)
  -h, --ora-home=<path>      Force ORACLE_HOME if not in user's environment
  -b, --ora-base=<path>      Force ORACLE_BASE if not in user's environment
  -i, --install              Install Arcserve Continuity Suite (Answer 'yes' to install)
  -q|y, --quiet              Perform a default installation.
                             - ack and don't display license
                             - ensure caarha group exists or is created
                             - oracle support is not installed
                             - language is auto detected.
  -l, --language=<lang>     Specify language, default is C.UTF-8
  -f, --firewall             Open firewall port 25000
  -v, --virtual              Install Virtual Appliance packages."
  -F, --force               Install even if scenario is running."

NOTE: You must be an admin (root) to install.
```

2. To provide your consent during interactive installation, do the following:

- a. To continue with the installation and accept End User License Agreement, type YES and press Enter.

```
Do you accept Arcserve End User License Agreement?[YES]yes
```

- b. If you already have the Continuity Suite Engine previously installed, a prompt appears that needs your confirmation for product upgrade. To upgrade, type YES and press Enter.

```
Continuity Suite 18.0-0.5503 is already installed.  
Do you want to upgrade Continuity Suite to 18.3-0.7024?[YES]
```

- c. If you plan to use the given host as proxy and install Virtual Appliance packages in Full System HA scenarios, type YES and press Enter.

```
Install packages needed to act as Virtual Appliance for Full System HA?[NO]yes
```

- d. To confirm user group creation for Continuity Suite Engine, type YES and press Enter.

Note: By default, only a root user can authenticate and manage Continuity Suite Engine. Non-root users must be listed in the group to be able to authenticate and manage Continuity Suite Engine.

```
Create "caarha" group?[YES]yes
```

- e. To replicate Oracle and enable its support, type YES and press Enter. The default option is NO.

```
Enable Oracle support[NO]
```

- f. To select the language, type the number corresponding to the specified language, and then press Enter.

```
Please select language to be used:  
1 - Chinese (Simplified)  
2 - Chinese (Traditional)  
3 - English (United States)  
4 - French (France)  
5 - German (Germany)  
6 - Italian (Italy)  
7 - Japanese  
8 - Portuguese (Brazil)  
9 - Spanish (Traditional Sort)  
Please select your language [3]
```

- g. To allow firewall port to be opened for the engine, type YES and press Enter.

The default port value is 25000.

Note: If you plan to use a different port, type NO and later change the engine port manually in the /opt/Arcserve/RHA/bin/ws_rep.cfg file, and then open the corresponding firewall port.

```
Open firewall port 25000? [YES]
```

- h. If you want to enable latest product updates, type YES and press Enter. The default option is NO.

```
Check for latest product updates (recommended)? [NO]
```

3. Do the following NAT settings:

- a. On the Master server, run the following command in /opt/Arcserve/RHA/bin:

```
./natutl
```

- b. To check if any machines are added, run the following command:

```
nat.list
```

- c. To add the NAT settings, run the following command:

```
nat.addhost <VA IP address> 25000
```

- d. To apply the NAT settings, run the following command:

```
nat.apply
```

- e. To check whether the Master can communicate, run the following command:

```
telnet <VA IP address> 25000
```

Notes:

- ◆ If you decide to enable Oracle support, you must provide information such as Oracle Owner, Oracle Home path, and Oracle Base path. The Oracle Owner is primarily required as it allows the product to retrieve the Home path and Base path information using the Oracle Owner user environment. If the Home path and Base path information cannot be found, then you must manually add them. On Solaris, if your Oracle server is installed without the 32-bit Oracle client library, then you must also provide the Oracle Instant Client path.
- ◆ Although the Arcserve Continuity Suite package is installed, you are prompted to reinstall it.
- ◆ To allow non-root users to manage scenarios, you must create the "caarha" group on your machine and make sure the group works with the supplementary group.

The Arcserve Continuity Suite Engine is installed.

Configure Microsoft Azure

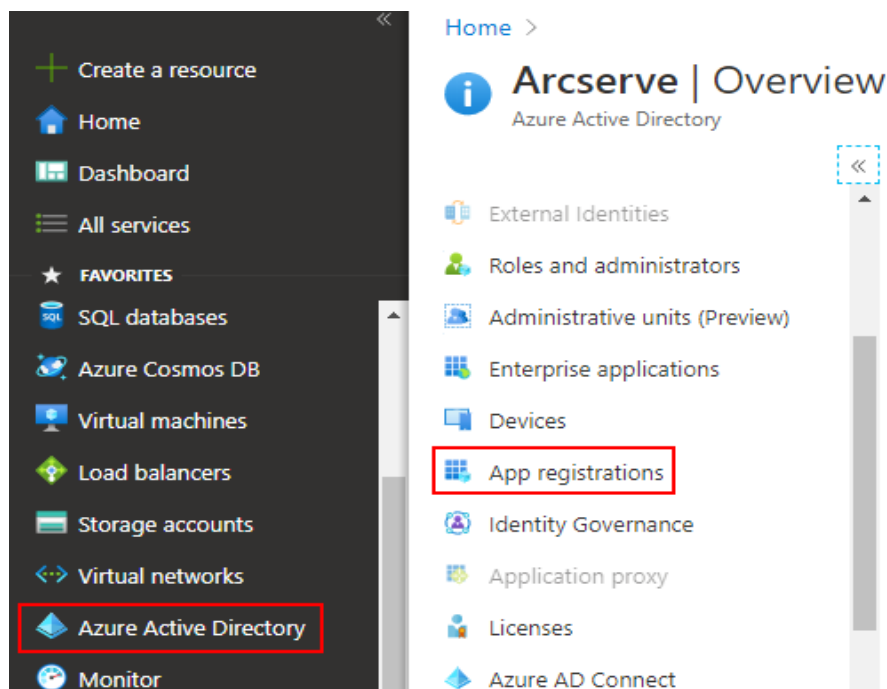
Arcserve Replication and High Availability needs some of the Azure properties for the Full System scenario to work with Azure. Before adding an account in the Continuity Suite manager, you need to configure Microsoft Azure, which includes generating the following account information:

- E-mail Address
- Subscription ID
- Tenant ID (Directory ID)
- Application ID
- Client Key

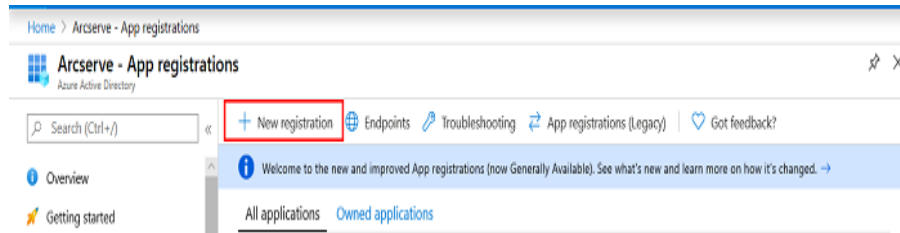
First, prepare the Azure cloud account, and then add the account in Continuity Suite Manager.

To configure an Azure Cloud account, follow these steps:

1. Perform the following steps to register an Azure Active Directory application:
 - a. Log into the [Azure portal](#).
 - b. From the left pane, select **Azure Active Directory**, and then click **App registrations**.



- c. On the Arcserve- App registrations page, click **New registration**.



d. On the Register an application page, do the following, and then click **Register**:

- Name - Enter a name for the application.
- Supported account types - Select a supported account type, which determines who can use the application.
- Redirect URI (optional) - Select **Web or Public client (mobile & desktop)** for the type of application you are creating, and then enter the redirect URI for your application.

Register an application

*** Name**
The user-facing display name for this application (this can be changed later).
 ✓

Supported account types
Who can use this application or access this API?

☒ Accounts in this organizational directory only (Arcserve only - Single tenant)
☐ Accounts in any organizational directory (Any Azure AD directory - Multitenant)
☐ Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

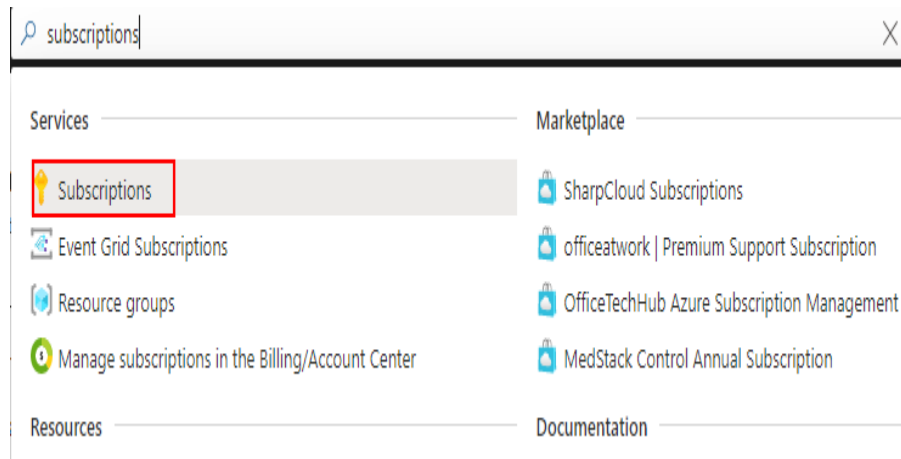
[Help me choose...](#)

Redirect URI (optional)
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

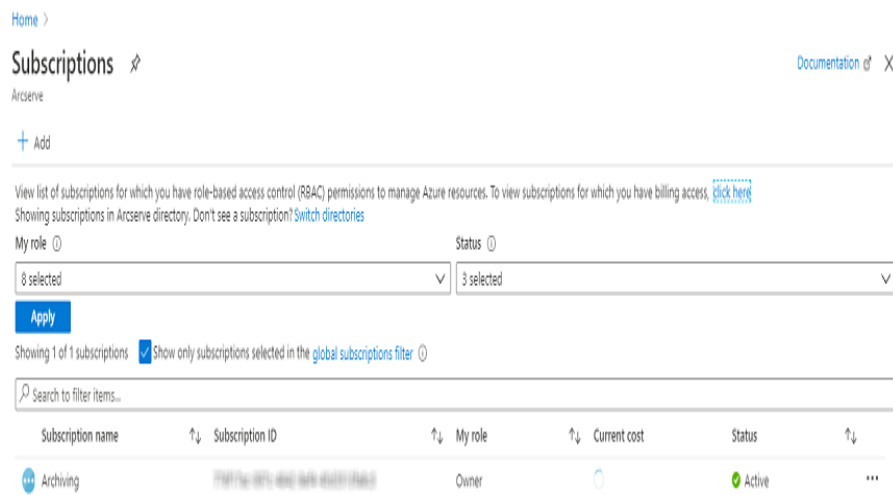
By proceeding, you agree to the [Microsoft Platform Policies](#)

Register

e. On the search bar, type subscriptions, and then from the list, click **Subscriptions**.

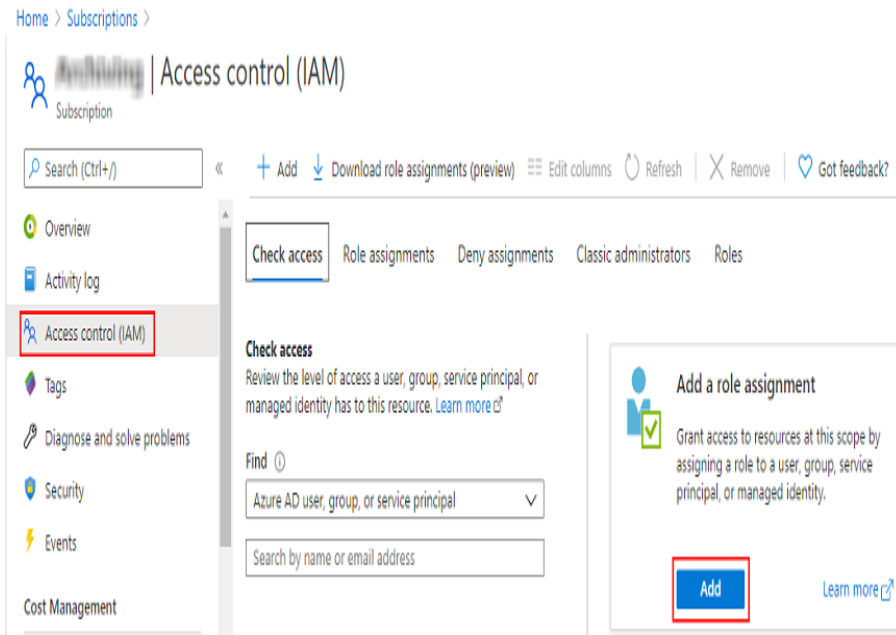


- f. On the Subscriptions pages, select the subscription for your application.



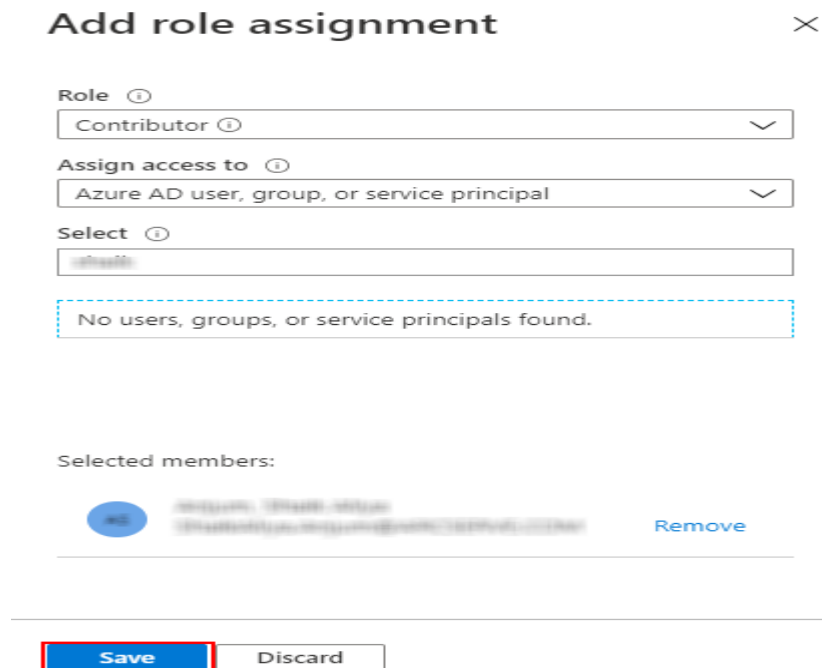
Note: If the subscription list does not display the required subscription, select **global subscriptions filter**. Make sure the subscription you want is selected for the portal.

- g. From Subscriptions, go to **Access control (IAM) > Check access**, and then click **Add** from the Add a role assignment box.



h. On the Add role assignment page, do the following, and then click **Save**:

- Role - Select the role you want to assign to the application.
- Assign access to - Leave it as default.
- Select - By default, the Azure AD applications do not display in the available options. To find your application, search for the name, and then select it.



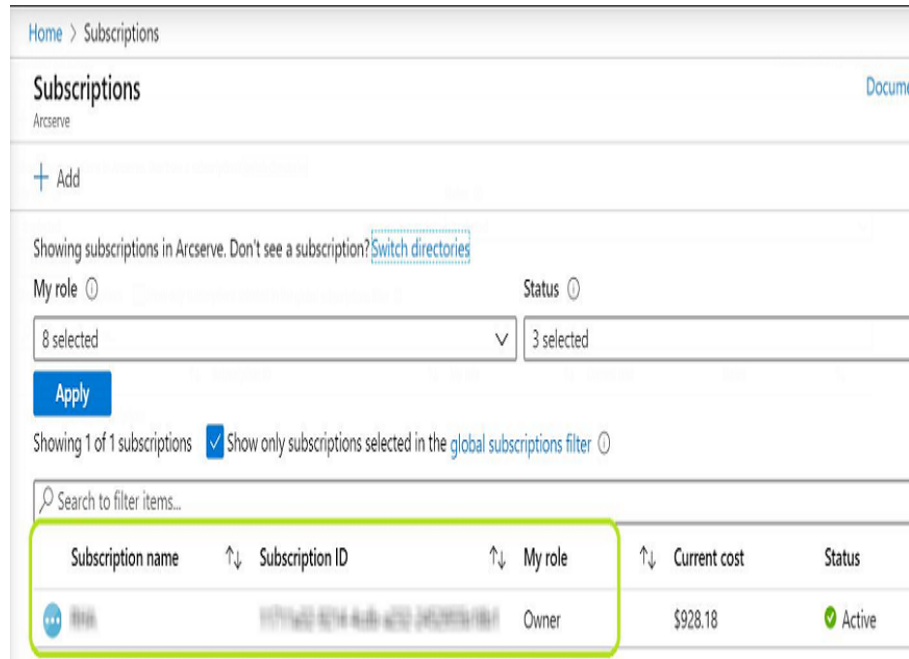
The Azure Active Directory application is registered, and a role has been assigned to it successfully.

Now, you can perform the next steps using the registered application to get the required IDs and Key.

2. To get the [Subscription ID¹](#), follow these steps:

- a. From the left navigation pane of Azure portal, click **Subscriptions**.

The list of your subscriptions is displayed along with the subscription ID.



- b. Copy the subscription ID, which is used while adding the account in Continuity Suite Manager.

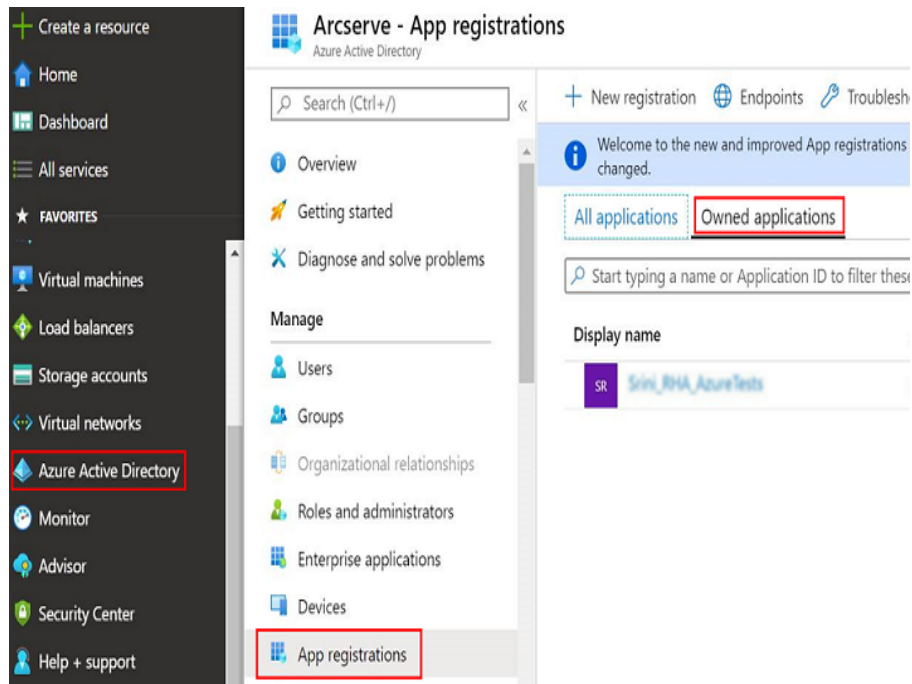
3. To get the [Tenant ID²](#) and [Application ID³](#), follow these steps:

- a. Navigate to **Azure Active Directory > App registrations > Owned applications**, and then select your application.

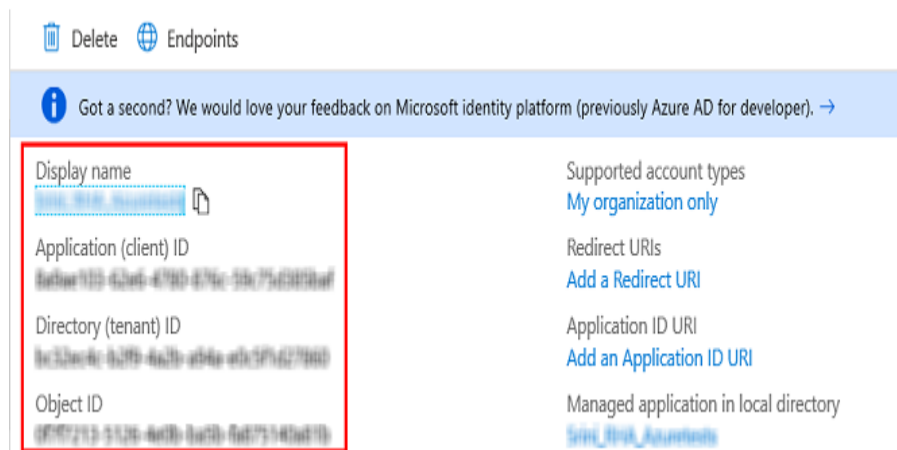
¹The Subscription ID refers to a GUID (Globally Unique Identifier) that uniquely identifies your subscription to use Azure services.

²Tenant ID refers to the ID of the Azure Active Directory where you created the application registration. Tenant ID is called Directory ID inside Azure Active Directory Properties.

³An Application ID refers to a GUID that uniquely identifies the app's registration in the Azure Active Directory tenant. Sometimes, it is also referred as Client ID.



- b. Copy the Tenant ID and Application ID, which are used while adding the account in the Continuity Suite Manager.



4. To get the [Client secret](#)¹, follow these steps:
- On the App registrations page, select the application, navigate to **Certificates & secrets** on the left pane, and then click **New client secret** to add a client secret.

¹Client secret is referred as an authentication key in Azure.

Home > Arcserve | App registrations >

 Certificates & secrets

- Overview
- Quickstart
- Integration assistant (preview)
- Manage
- Branding
- Authentication
- Certificates & secrets**
- Token configuration
- API permissions
- Expose an API
- Owners

Certificates

Certificates can be used as secrets to prove the application's identity when requesting a token. Also can be referred to as public keys.

[Upload certificate](#)

Thumbprint	Start date	Expires
No certificates have been added for this application.		

Client secrets

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

[+ New client secret](#)

Description	Expires	Value
No client secrets have been created for this application.		

- b. On the Add a client secret page, enter the description, select the expiry interval, and then click **Add**.

Add a client secret

Description

Expires

☐ In 1 year
☒ In 2 years
☐ Never

Add **Cancel**

The client secret value is displayed.

Certificates & secrets

Search (Ctrl+/)

Overview
Quickstart
Manage
Branding
Authentication
Certificates & secrets
Token configuration (preview)
API permissions
Expose an API
Owners
Roles and administrators (Preview)
Manifest
Support + Troubleshooting

Copy the new client secret value. You won't be able to retrieve it after you perform another operation or leave this blade.

Credentials enable applications to identify themselves to the authentication service when receiving tokens at a web addressable location. For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.

Certificates

Certificates can be used as secrets to prove the application's identity when requesting a token. Also can be referred to as public key.

Upload certificate

No certificates have been added for this application.

Thumbprint	Start Date	Expires
------------	------------	---------

Client secrets

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

+ New client secret

Description	Expires	Value
Live Migration	1/9/2022	[REDACTED]

Important! Copy and save this value as you cannot retrieve it later.

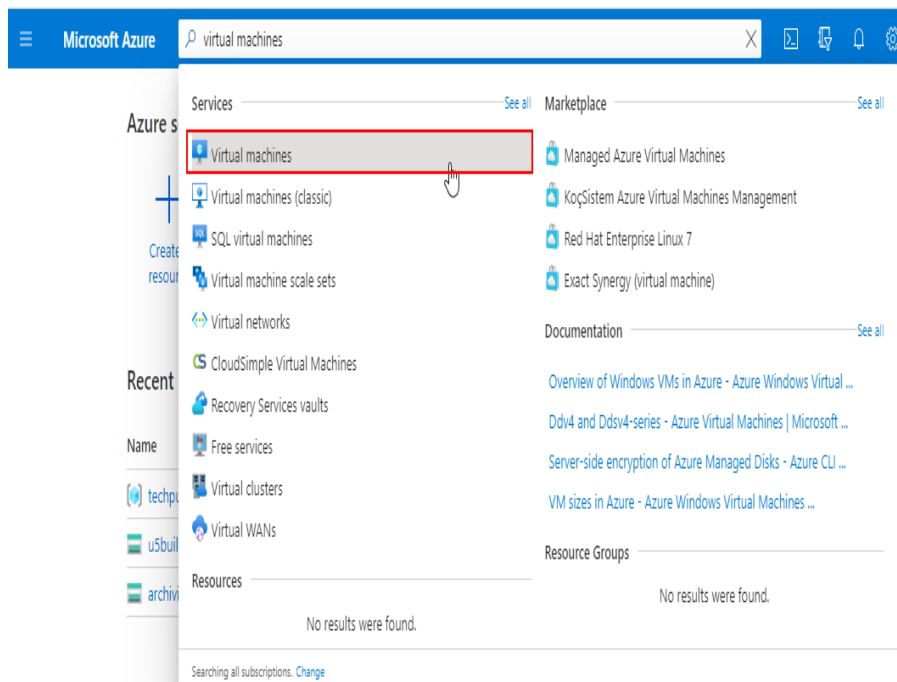
The Azure account for Live Migration is now configured.

Provision VA on Microsoft Azure

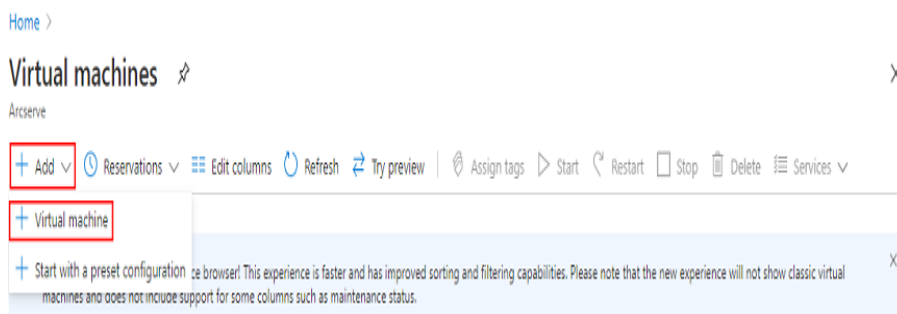
The Continuity Suite Virtual Appliance (VA) is a VM running on the virtualization platform or cloud where you want to replicate the Master servers. The VA acts as Replica in a Continuity Suite Full System scenario. The Master server is replicated to this virtualization platform or cloud. However, the Disaster Recovery VM of Master server starts and runs on this virtualization platform or cloud for multiple reasons, such as Assured Recovery testing, Switchover, and Start VM.

Follow these steps:

1. Log into the [Azure Portal](#).
2. Search for virtual machines in the search bar, and then select **Virtual machines**.



3. On the Virtual machines page, click **Add**, and then click **Virtual machine**.



The Create a virtual machine page appears.

Create a virtual machine

Basics Disks Networking Management **Advanced** Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ

[Create new](#)

4. On the Basics tab, under Project details, do the following:

- Subscription - Select the correct subscription.
- Resource group - Select the existed resource group from the drop-down list or click **Create new** to create a new resource group. Enter a name for the resource group, and then click **OK**.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ

[Create new](#)

Instance details

Virtual machine name * ⓘ

Region * ⓘ

Availability options ⓘ

[Review + create](#)

< Previous

OK

Cancel

A resource group is a container that holds related resources for an Azure solution.

Name *

5. Under Instance details, do the following, and retain defaults for the remaining fields:

- Virtual machine name - Enter a name for the virtual machine.
- Region - Select the required region.
- Image - Select the required image.

Instance details

Virtual machine name *	<input type="text" value="TestVM"/>	✓
Region *	<input type="text" value="(Asia Pacific) Southeast Asia"/>	▼
Availability options	<input type="text" value="No infrastructure redundancy required"/>	▼
Image *	<input type="text" value="Ubuntu Server 18.04 LTS - Gen1"/>	▼
	Browse all public and private images	
Azure Spot instance	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Size *	<input type="text" value="Standard_D2s_v3 - 2 vcpus, 8 GiB memory (\$91.25/month)"/>	▼
	Select size	

6. Under Administrator account, select the Authentication type as **Password**, and then provide a user name and password.

Note: The password must be at least 12 characters long and meet the defined complexity requirements.

Administrator account

Authentication type	<input type="radio"/> SSH public key <input checked="" type="radio"/> Password	
Username *	<input type="text" value="Azureuser"/>	✓
Password *	<input type="password" value="....."/>	✓
Confirm password *	<input type="password" value="....."/>	✓

7. Under Inbound port rules, do the following:

- Public inbound ports - Select **Allow selected ports**.
- Select inbound ports - From the drop-down list, select all the inbound ports so that all the ports get enabled when you use this option.

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports *

☐ None ☒ Allow selected ports

Select inbound ports *



This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

8. Retain defaults for the remaining fields, and then click **Next: Disks**.
9. On the Disks tab, we recommend using the default settings, however you may make changes as needed, and then click **Next: Networking**.

Basics Disks Networking Management Advanced Tags Review + create

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

Disk options

OS disk type *

Encryption type *

Enable Ultra Disk compatibility ⓘ

☐ Yes ☒ No

Ultra Disk compatibility is not available for this VM size and location.

Data disks

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching
Create and attach a new disk Attach an existing disk				

10. On the Networking tab, we recommend using the default settings, however you may make changes as needed, and then click **Next: Management**.

Basics Disks **Networking** Management Advanced Tags Review + create

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution. [Learn more](#)

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network * ⓘ (new) techpubs-vnet [Create new](#)

Subnet * ⓘ (new) default (10.0.2.0/24) [Create new](#)

Public IP ⓘ (new) TestVM-ip [Create new](#)

NIC network security group ⓘ ☐ None ☒ Basic ☐ Advanced

Public inbound ports * ⓘ ☐ None ☒ Allow selected ports

[Review + create](#) < Previous Next : Management >

- On the Management tab, we recommend using the default settings, however you may make changes as needed, and then lick **Next: Advanced**.

Basics Disks Networking **Management** Advanced Tags Review + create

Configure monitoring and management options for your VM.

Azure Security Center

Azure Security Center provides unified security management and advanced threat protection across hybrid cloud workloads. [Learn more](#)

✓ Your subscription is protected by Azure Security Center basic plan.

Monitoring

Boot diagnostics ⓘ ☒ On ☐ Off

OS guest diagnostics ⓘ ☐ On ☒ Off

Diagnostics storage account * ⓘ (new) techpubsdiag552 [Create new](#)

[Review + create](#) < Previous Next : Advanced >

- On the Advanced tab, click **Next: Tags**.

Basics Disks Networking Management **Advanced** Tags Review + create

Add additional configuration, agents, scripts or applications via virtual machine extensions or cloud-init.

Extensions

Extensions provide post-deployment configuration and automation.

Extensions ⓘ [Select an extension to install](#)

Custom data

Pass a script, configuration file, or other data into the virtual machine while it is being provisioned. The data will be saved on the VM in a known location. [Learn more about custom data for VMs](#) ⓘ

Custom data

Review + create

< Previous

Next : Tags >

13. On the Tags tab, click **Next: Review + create**.

Basics Disks Networking Management Advanced **Tags** Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#) ⓘ

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name ⓘ	Value ⓘ	Resource
<input type="text"/>	:	<input type="text" value="12 selected"/> ▼

Review + create

< Previous

Next : Review + create >

On the Review + create page, the **Validation passed** message appears.

14. On the Review + create tab, click **Create**.

✓ Validation passed

Basics Disks Networking Management Advanced Tags Review + create

PRODUCT DETAILS

Standard D2s v3
by Microsoft
[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ
0.2170 USD/hr
[Pricing for other VM sizes](#)

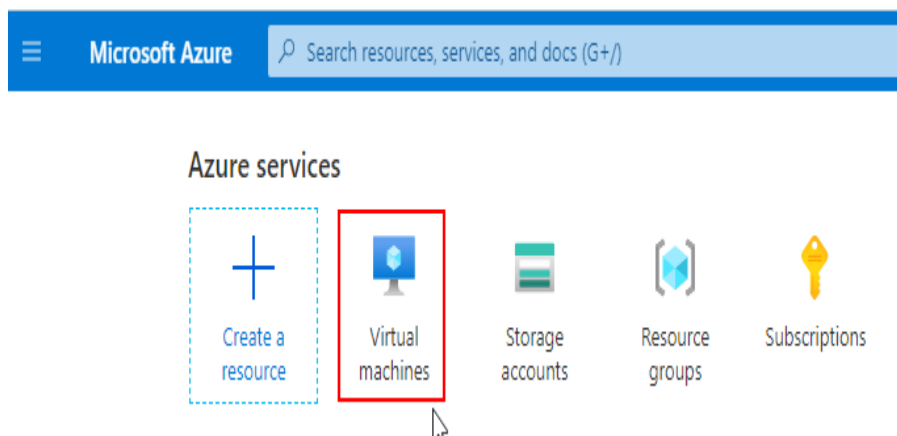
TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Create < Previous Next > [Download a template for automation](#)

Wait until the deployment process is complete.

15. Navigate to Home tab on the top-right corner, and then click **Virtual machines**.



16. On the Virtual machines page, select the virtual machine.

Home >

Virtual machines

Arcserve

+ Add ⌚ Reservations ≡ Edit columns ↻ Refresh | 🏷️ Assign tags ▶ Start ↺ Restart □

Subscriptions: Archiving

Filter by name... All resource groups All types

1 of 4 items selected

<input type="checkbox"/>	Name ↑↓	Type ↑↓	Status	Resource group ↑↓
<input type="checkbox"/>	ganesh399vm	Virtual machine	Running	Ganesh_arch
<input type="checkbox"/>	TestVM	Virtual machine	Running	techpubs
<input type="checkbox"/>	u5sureshvm	Virtual machine	Running	Ganesh_arch
<input type="checkbox"/>	ushau4vm	Virtual machine	Running	Ganesh_arch

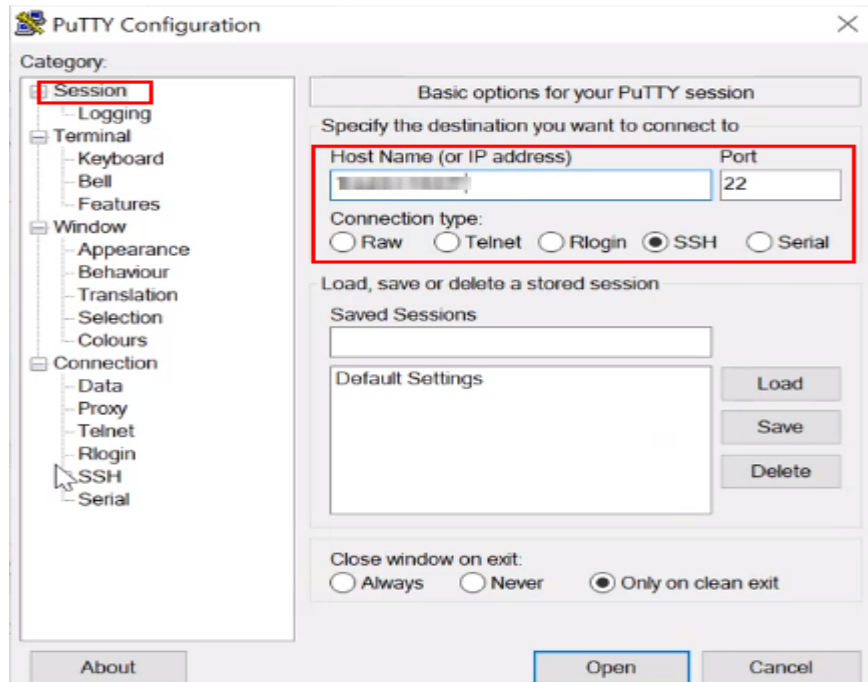
The overview page for your virtual machine opens.

17. On the overview page, select the public IP address and copy it to the clipboard.

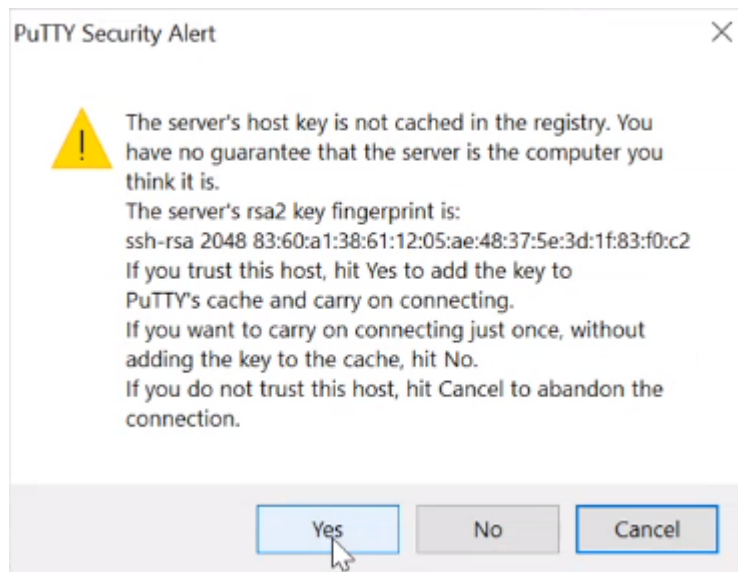
Operating system	: Linux (ubuntu 18.04 LTS)
Size	: Standard D2s v3 (2 vCPUs, 8 GB Memory)
Public IP address	: 134.170.140.140

Copy to clipboard

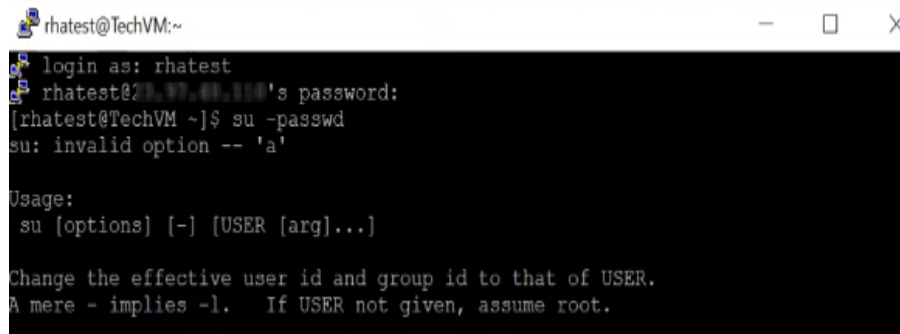
18. To connect to the virtual machine, do the following:
 - a. Search for PuTTY in the search bar next to the start menu, and then click **PuTTY**.
 - b. In the Category pane, select **Session**, and do the following:
 - Host Name (or IP address) – Type the IP address or host name.
 - Connection type – Select **SSH** as connection type.
 - Port – Type the port value. The default port value is 22.



- c. If you are connecting to the instance for the first time, PuTTY displays a security alert message asking whether you trust the host you are connecting to. Click **Yes**.



A window opens and you are connected to your Linux instance.



```
rhatest@TechVM:~  
login as: rhatest  
rhatest@20.99.88.100's password:  
[rhatest@TechVM ~]$ su -passwd  
su: invalid option -- 'a'  
  
Usage:  
su [options] [-] [USER [arg]...]  
  
Change the effective user id and group id to that of USER.  
A mere - implies -l.  If USER not given, assume root.
```

- d. Log into your Linux VM account using the user name and password, and do the following:
1. To change the password for root user, run the following command:

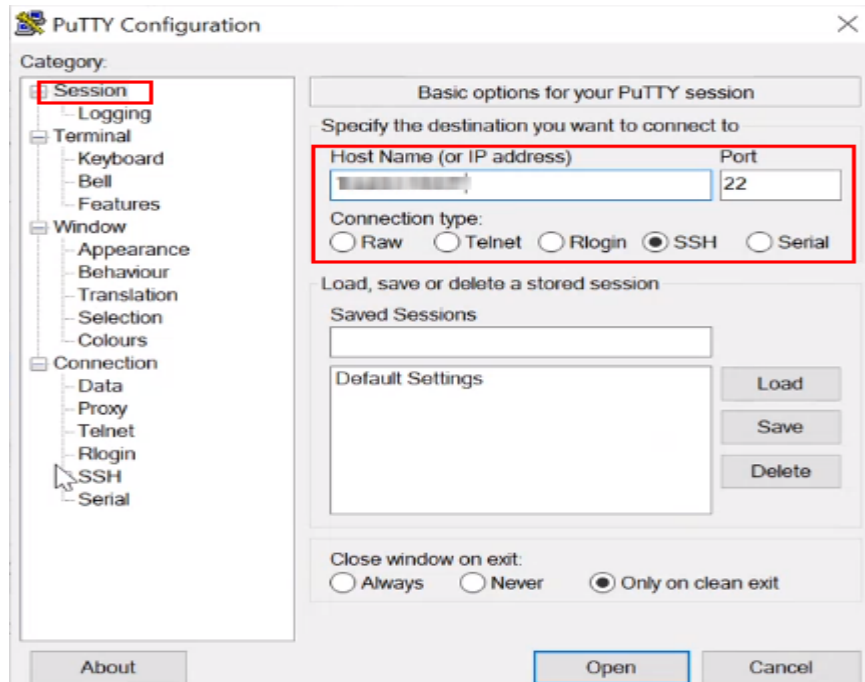
```
sudo passwd
```
 2. To open the sshd server system-wide configuration file, run the following command:

```
sudo vi etc/ssh/sshd_config
```
 3. To permit root login, type Yes. The default option is Yes.

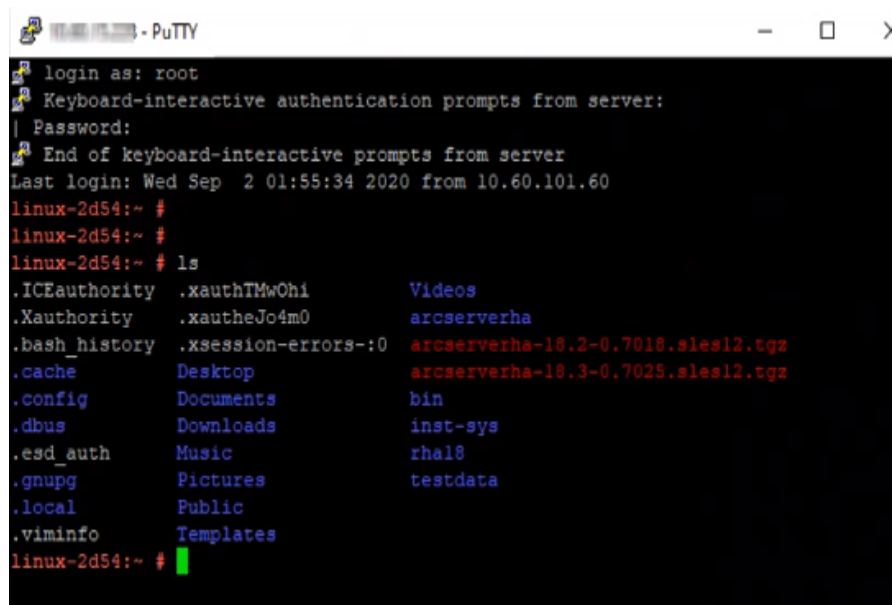
```
PermitRootLogin yes
```
 4. To allow password authentication, type Yes. The default option is No.

```
PasswordAuthentication no
```
- We recommend that you type Yes, and run the following command:
- ```
sudo systemctl restart sshd
```

- e. Open a new PuTTY session, do the following, and then click **Open**:
- Host Name (or IP address) – Type the IP address or host name.
  - Connection type – Select **SSH** as connection type.
  - Port – Type the port value. The default port value is 22.



- f. Log into the VM as a root user.



## Install Engine on Replica

To install Engine on Replica server, see [Installing Engine](#).

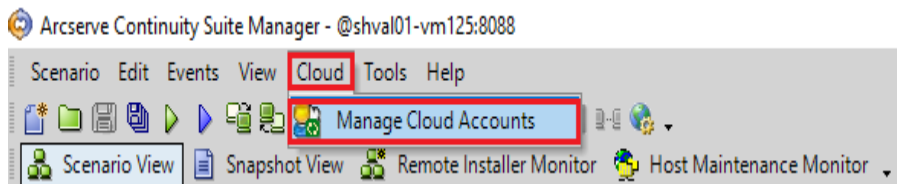
## Create Full System Scenario for Microsoft Azure

Arcserve Live Migration supports both Windows and Linux for Full System scenario. If the source server is Windows, then the Virtual Appliance (VA) must be Windows. If the source server is Linux, then the VA must be Linux as well.

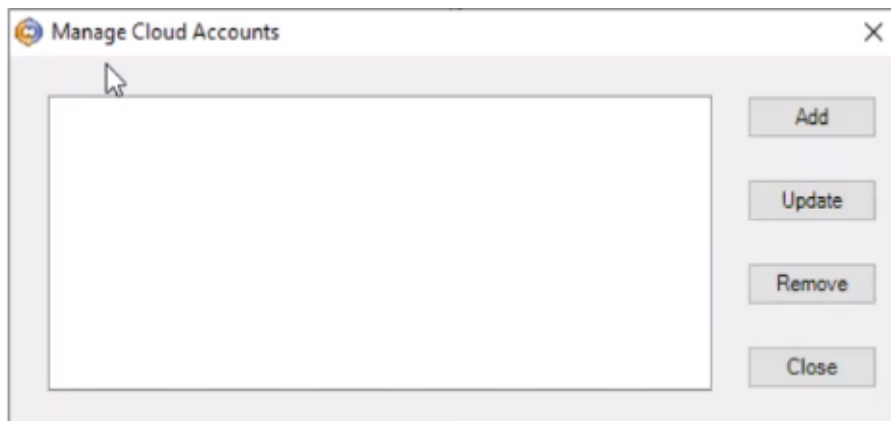
Before you create a scenario, add Azure Cloud Account in Continuity Suite Manager. For more information see, [Configure Azure Cloud](#).

**To add an Azure Cloud Account in Continuity Suite Manager, follow these steps:**

1. On the Continuity Suite Manager, navigate to **Cloud > Manage Cloud Accounts**.

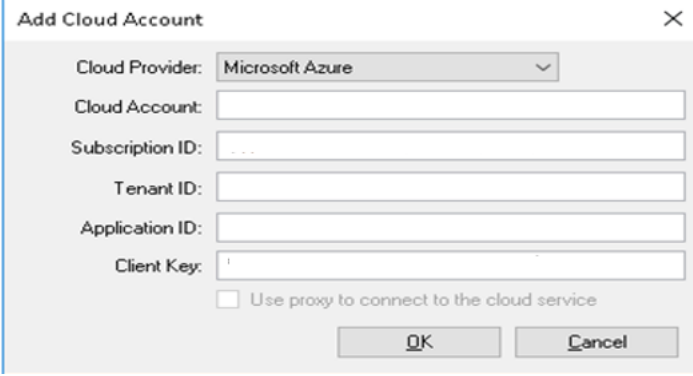


2. On the Manage Cloud Accounts screen, click **Add**.



3. On the Add Cloud Account screen, enter the following details in the required fields, and then click **OK**:
  - **Cloud Account** - Provide the cloud account, which is a user name you have defined.
  - **Subscription ID** - Provide the Subscription ID.
  - **Tenant ID** - Provide the Tenant ID.
  - **Application ID** - Provide the Application ID.
  - **Client Key** - Provide the Client Key.

**Note:** For more information about how to configure the Azure account details, see [Configure Microsoft Azure](#).



The screenshot shows a dialog box titled "Add Cloud Account" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- Cloud Provider:** A dropdown menu with "Microsoft Azure" selected.
- Cloud Account:** A text input field.
- Subscription ID:** A text input field.
- Tenant ID:** A text input field.
- Application ID:** A text input field.
- Client Key:** A text input field.
- ☐ Use proxy to connect to the cloud service
- OK** button
- Cancel** button

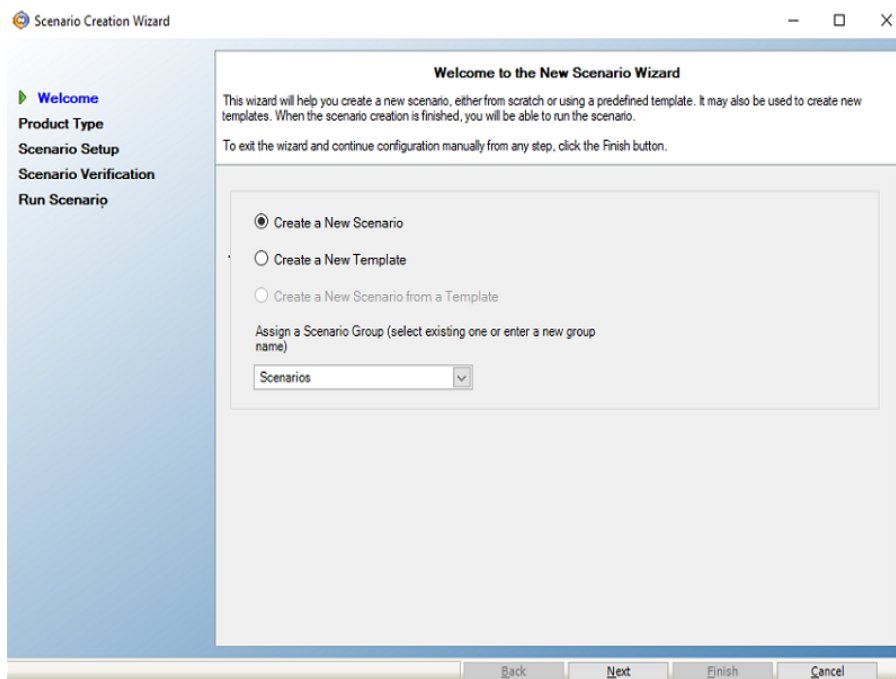
The Azure account for Live Migration is now added.

## Creating Full System Scenario for Microsoft Azure

This section provides instructions on how to create full system scenario for Microsoft Azure. Before you begin, make sure to register and create an account in Azure.

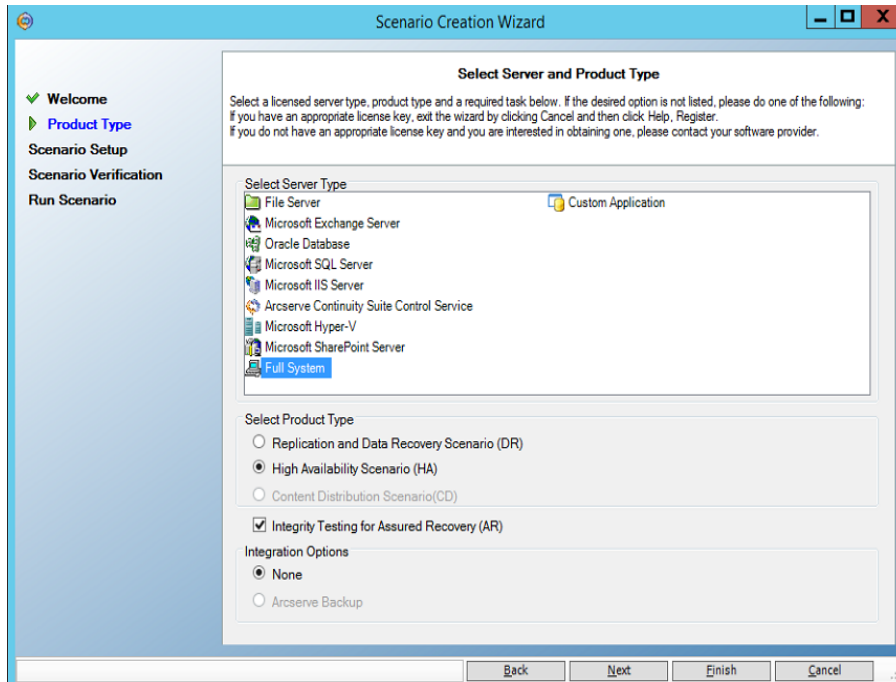
### Follow these steps:

1. Open the Arcserve Continuity Suite Manager, navigate to **Scenario>New** or click the **New Scenario** button to launch the wizard.
2. On the Welcome to the New Scenario Wizard screen, select **Create a New Scenario**, select a Scenario Group from the list, and then click **Next**.

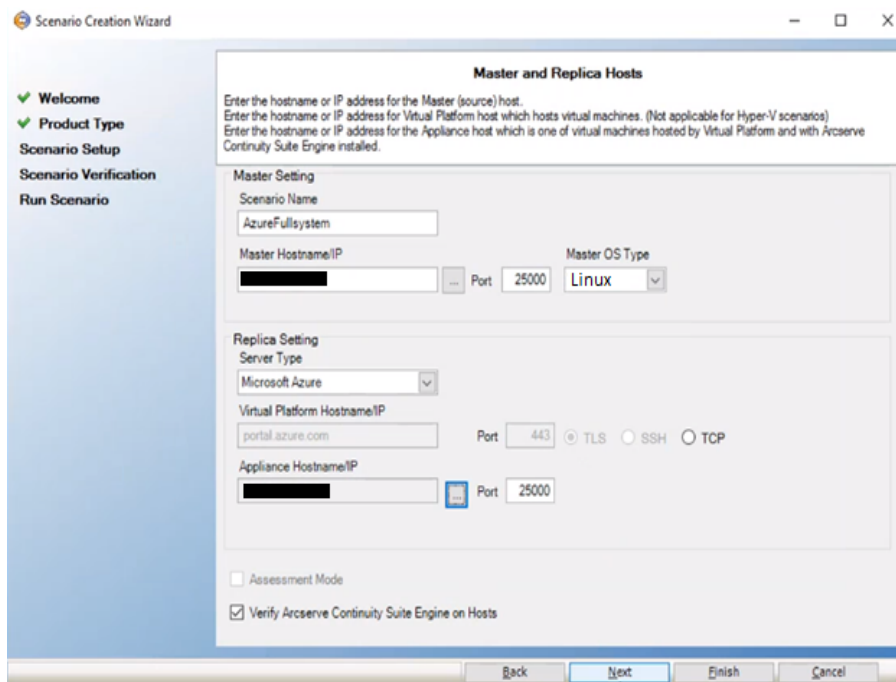


3. On the Select Server and Product Type screen, select Full System, High Availability Scenario (HA), and then click **Next**.

**Note:** To perform Assured Recovery testing, select the **Integrity Testing for Assured Recovery (AR)** check box.



4. On the Master and Replica Hosts screen, do the following, and then click **Next**:

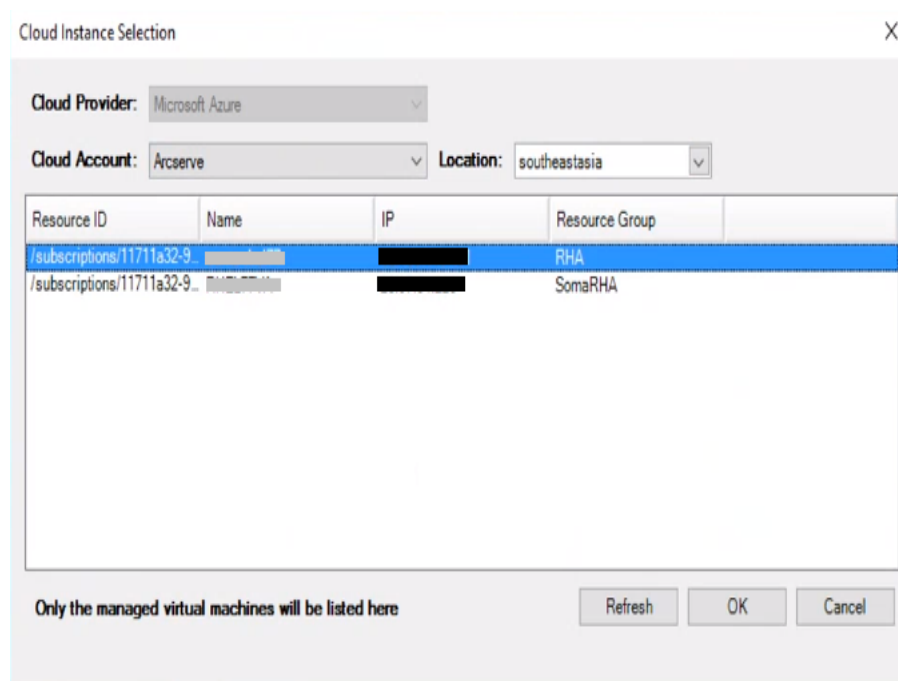


- **Scenario Name** - Enter a scenario name. The default name is based on the scenario type, for example, Full System.
- **Master Hostname/IP** - Enter the IP address of a physical machine you want to protect.
- **Master OS Type** - Select Linux as the Master OS Type.

- **Server Type** - Select Microsoft Azure as the Replica server.
- **Appliance Hostname/IP and Port** - Browse the Appliance Hostname/IP to select the Replica server.

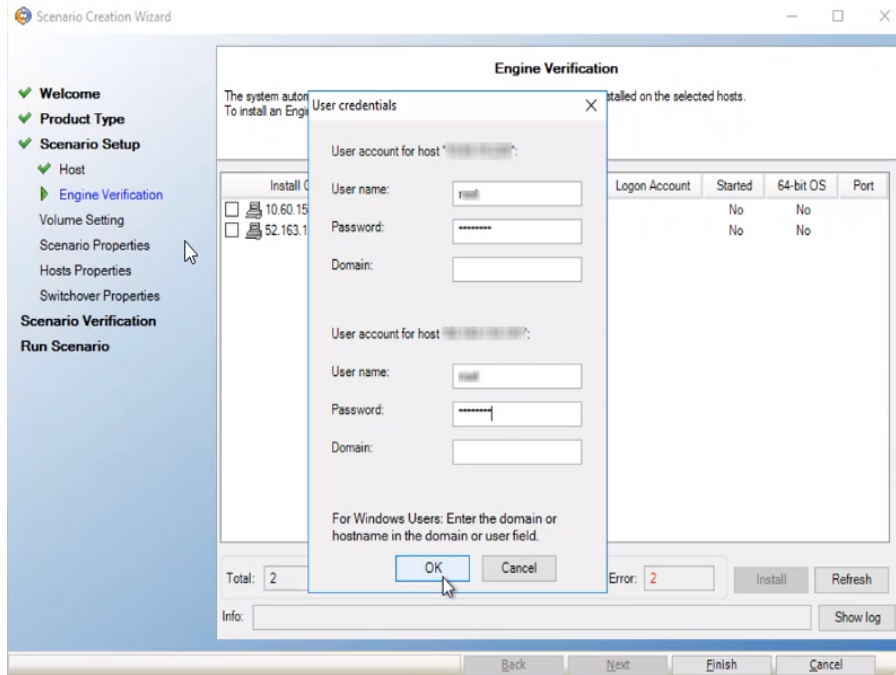
**Note:** Select the **Verify Arcserve Continuity Suite Engine on Hosts** check box to verify the connectivity between Master and Replica. It verifies that the engines are installed on the Master. To skip verification, clear the check box.

On the Cloud Instance Selection dialog, from the Location drop-down list, select the location. The list refreshes to display the relevant Azure instances. From the list, select the Azure instance you had created, and then click **OK**.

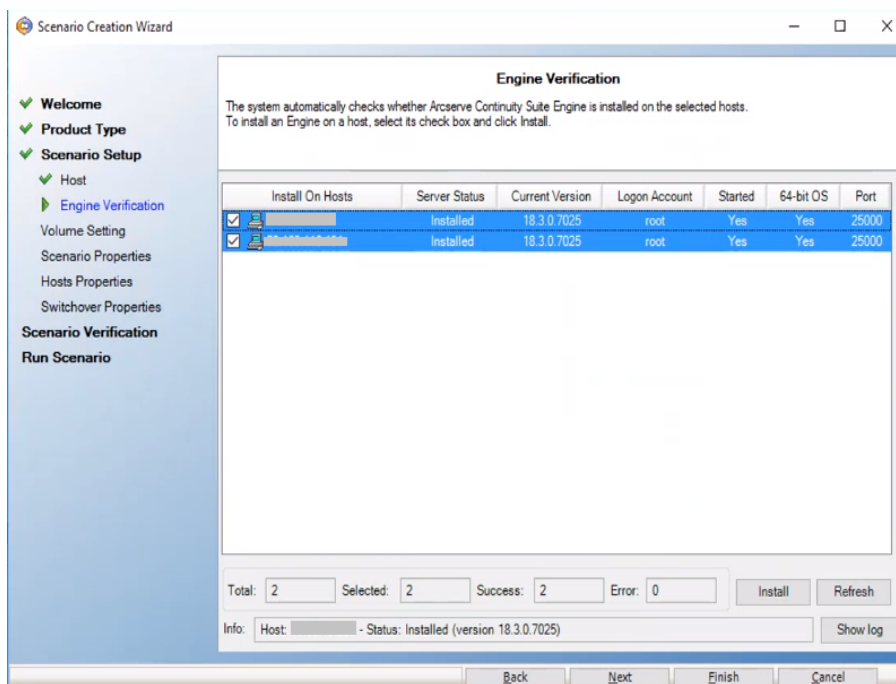


5. On the Engine Verification screen, the User credentials dialog appears. Enter the user name and password, and then click **OK**.

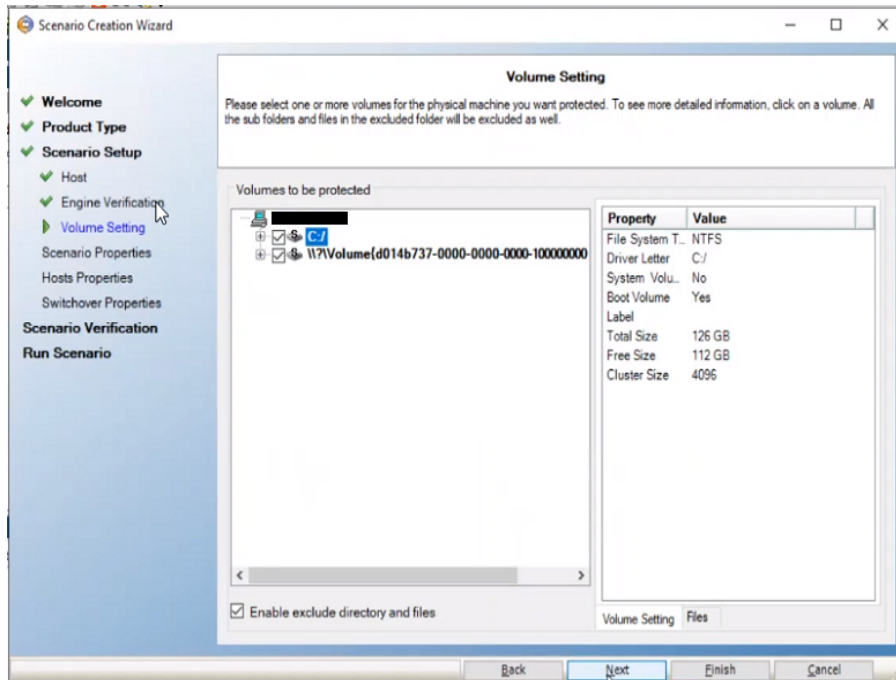




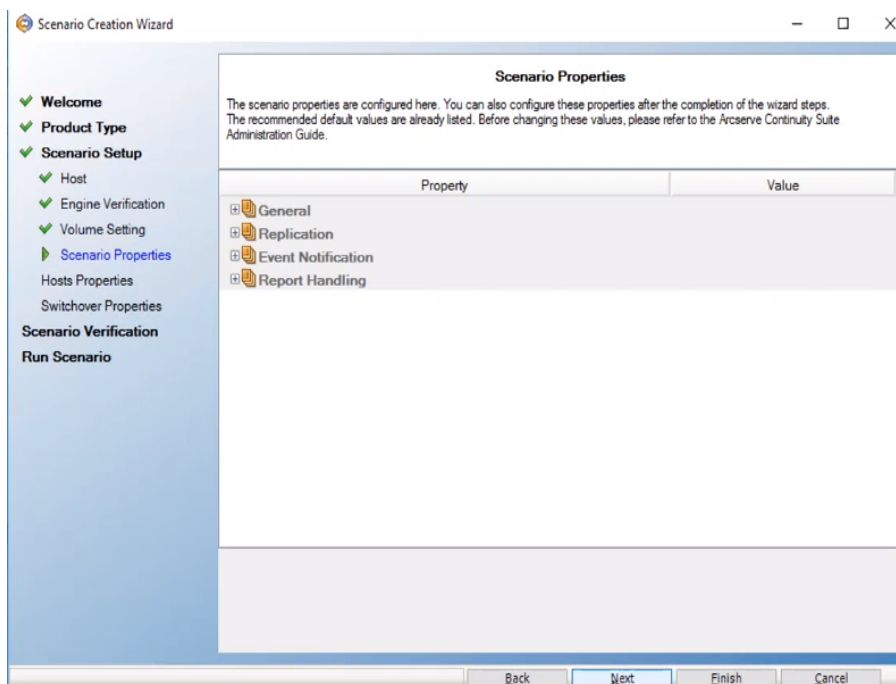
Wait for Engine verification to complete, and then click **Next**.



6. On the Volume Setting screen, select one or more volumes for the physical machine you want to protect, and then click **Next**.



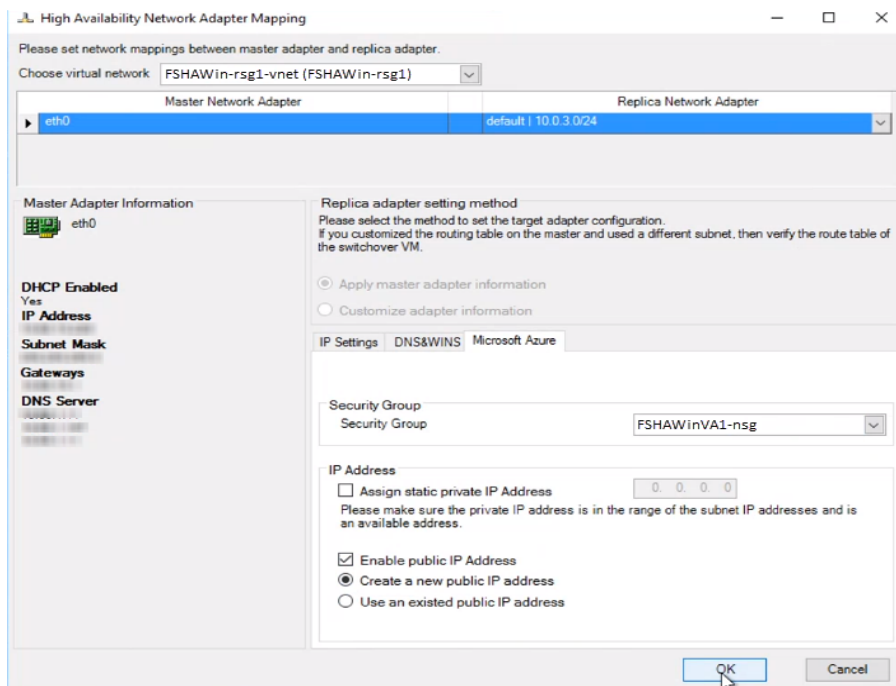
7. On the Scenario Properties screen, click **Next**.



8. On the High Availability Network Adapter Mapping dialog, enter the following details, and then click **OK**:

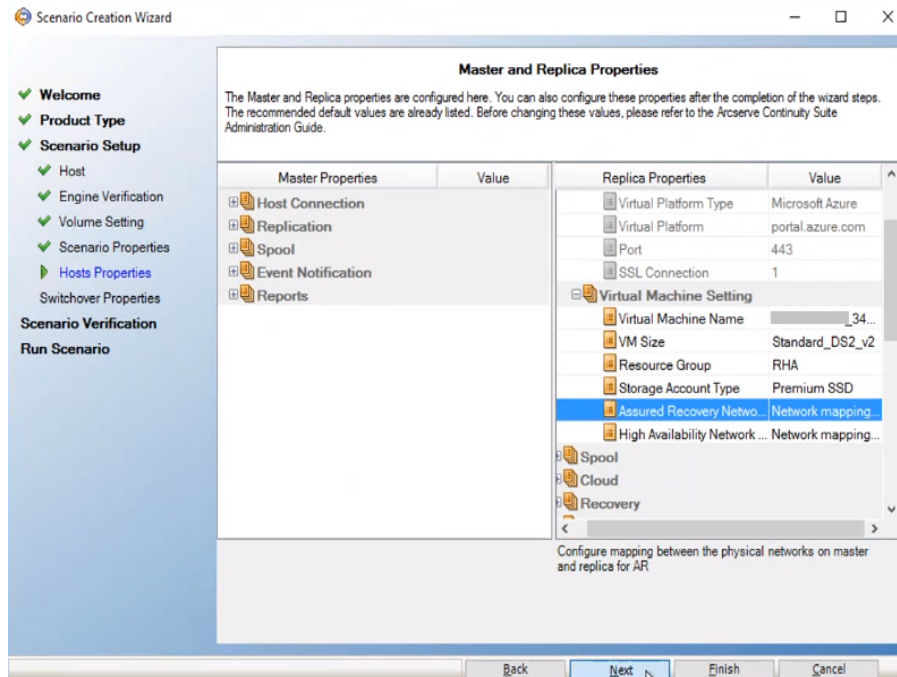
- **Choose virtual network** - Select virtual network from the drop-down list.
- **Replica Network Adapter** - Select the Replica network adapter from the drop-down list.

- **Security Group** - Select the required security group from the drop-down list.
- **IP Address** - Select one of the following:
  - Assign static private IP Address
  - Enable public IP address
    - If you want to create a new public IP address, enable the **Create a new public IP address** option.
    - If you want to connect to the virtual machine from outside your network, enable the **Use an existed public IP address** option.



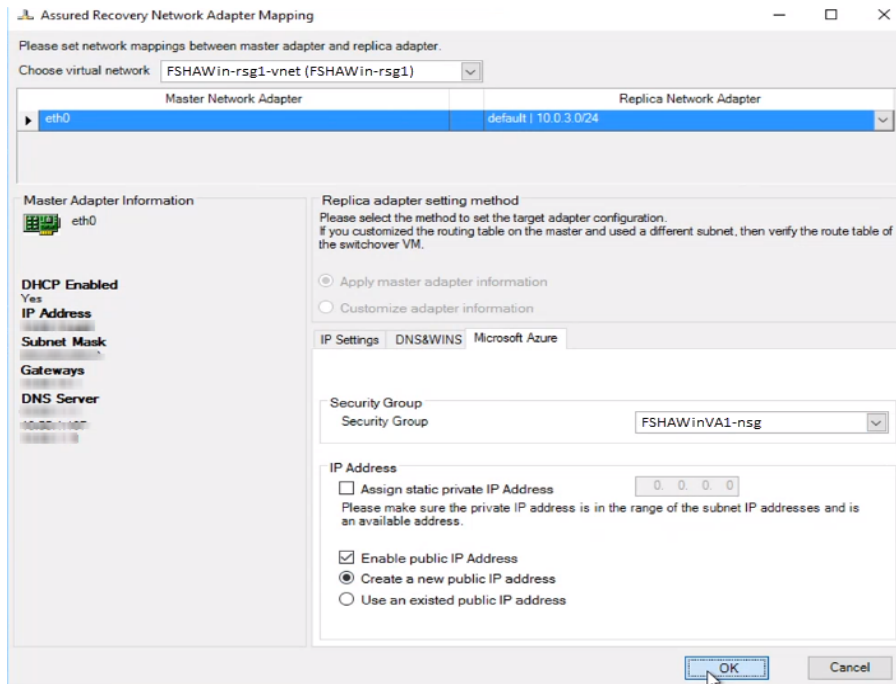
9. On the Master and Replica Properties screen, navigate to **Virtual Machine** -> **Virtual Machine Setting**, select **Assured Recovery Network**, and then click **Next**.

**Note:** The **Assured Recovery Network** option displays only If you have enabled the **Integrity Testing for Assured Recovery (AR)** option on the Select Server and Product Type screen.

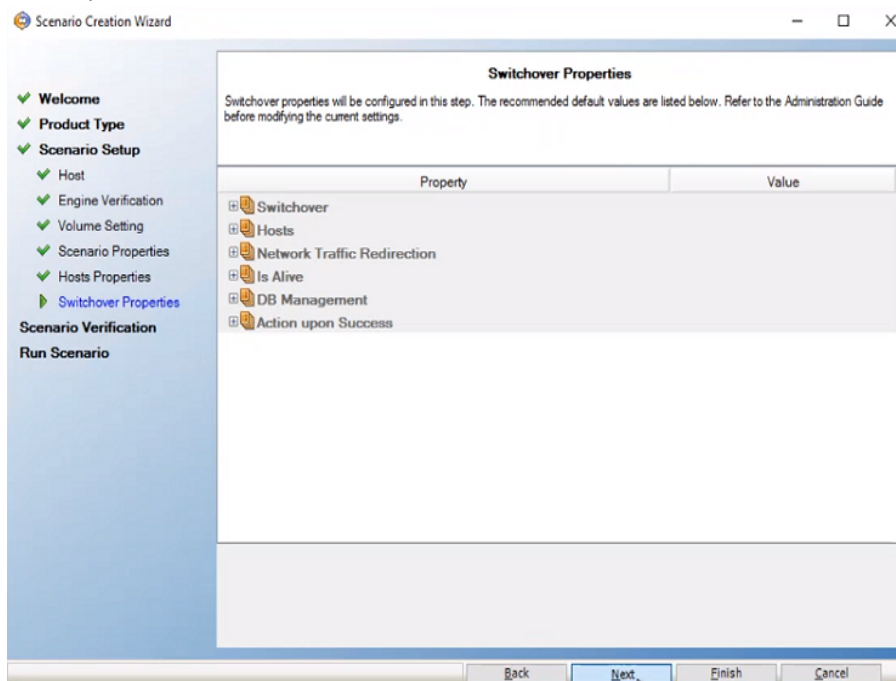


10. On the Assured Recovery Network Adapter Mapping dialog, enter the following details, and then click **OK**:

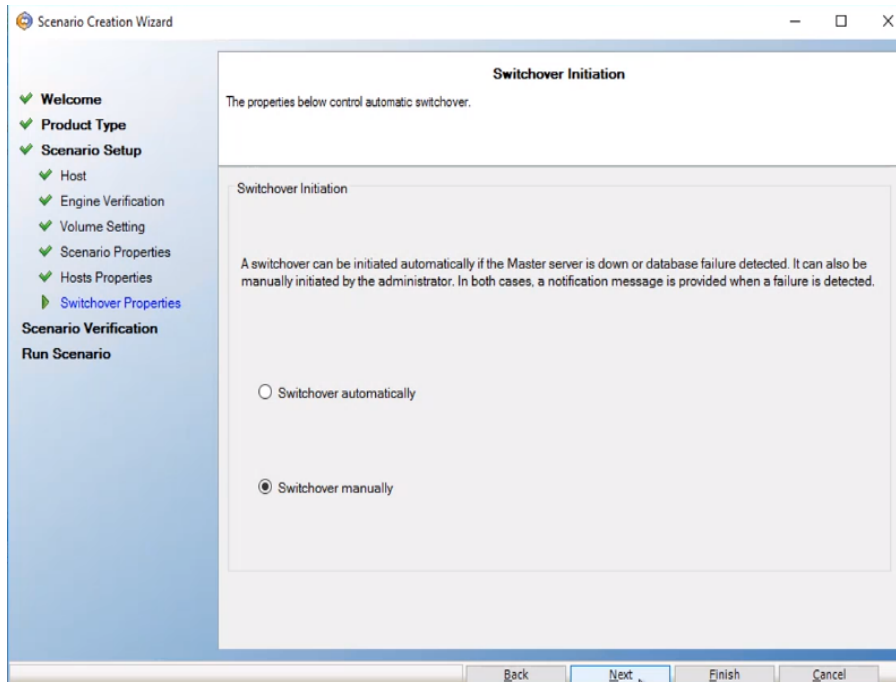
- **Choose virtual network** - Select virtual network from the drop-down list.
- **Replica Network Adapter** - Select the Replica network adapter from the drop-down list.
- **Security Group** - Select the required security group from the drop-down list.
- **IP Address** - Select one of the following:
  - Assign static private IP Address
  - Enable public IP address
    - If you want to create a new public IP address, enable the **Create a new public IP address** option.
    - If you want to connect to the virtual machine from outside your network, enable the **Use an existed public IP address** option.



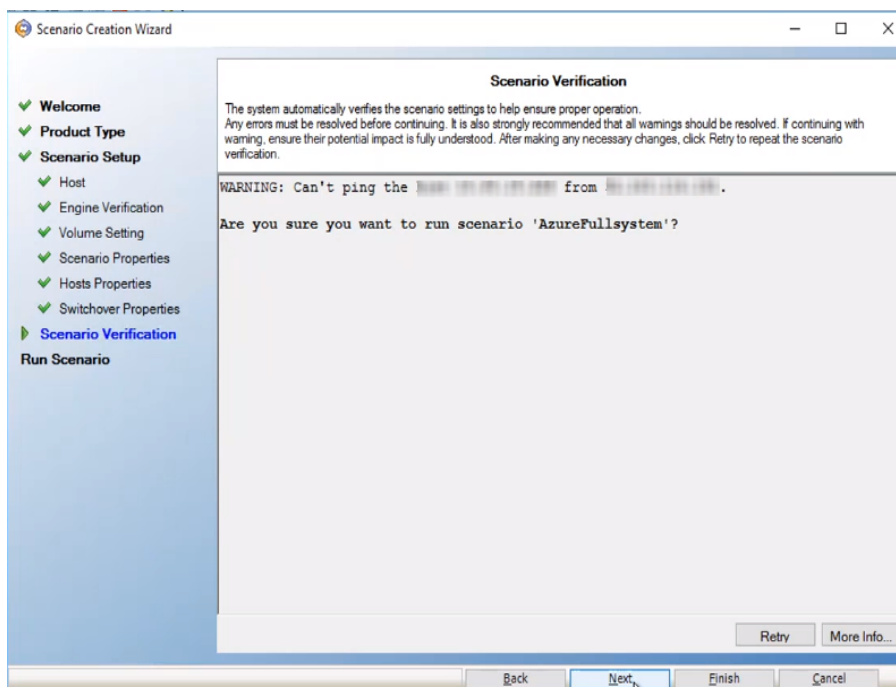
11. On the Switchover Properties screen, accept the default values or modify the values, and then click **Next**.



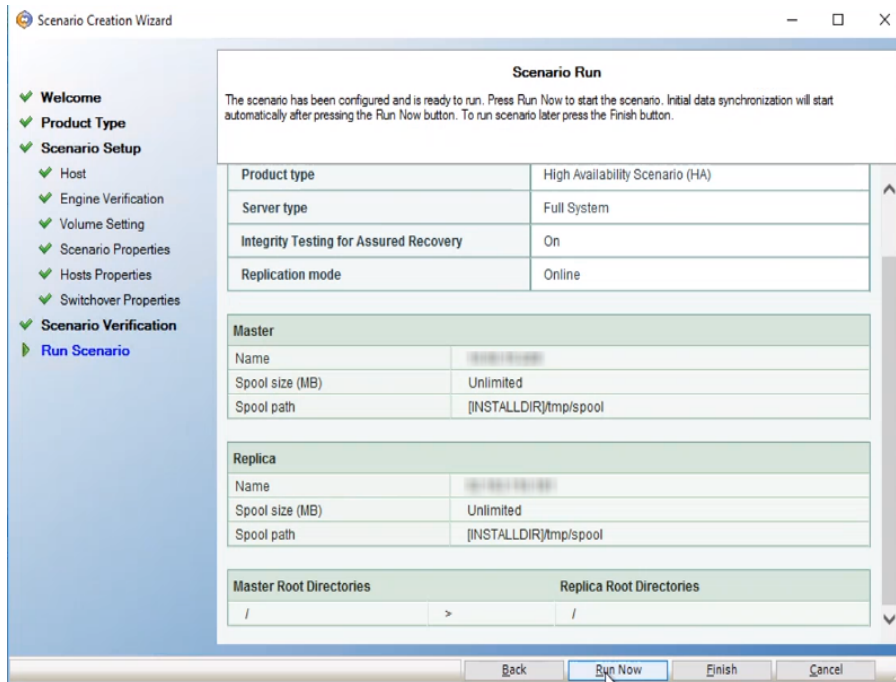
12. On the Switchover Initiation screen, specify if you want the switchover to start automatically (Switchover automatically) or manually (Switchover manually), and then click **Next**.



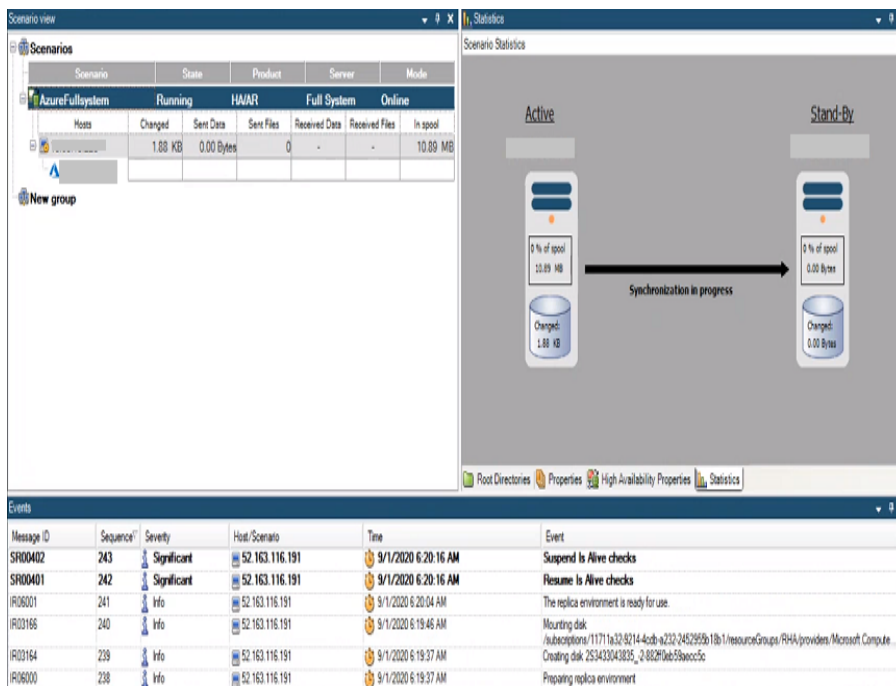
13. On the Scenario Verification screen, click **Next**.



14. On the Scenario Run screen, to start synchronization immediately and activate the scenario, click **Run Now**. To save and run the scenario later, click **Finish**.



The synchronization between Master and Replica servers starts. Wait for synchronization to complete.



## Perform Assured Recovery Testing

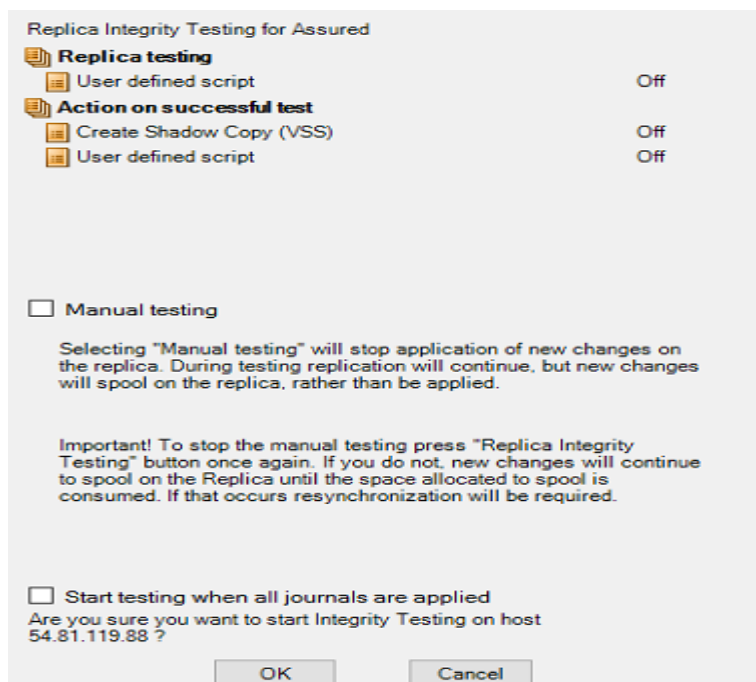
**Note:** Perform the Assured Recovery test only if you have enabled the **Integrity Testing for Assured Recovery (AR)** option on the Select Server and Product Type screen.

You can fully automate the Assured Recovery tests and schedule these tests as often as needed. On completion, an alert is sent to the appropriate personnel with the test status. You can also trigger additional actions such as taking a VSS snapshot of the data or running a backup. Alternatively, you can perform AR testing in a non-scheduled mode, and initiate the tests automatically or manually.

### Follow these steps:

1. On the Arcserve Continuity Suite Manager, verify that the AR scenario is running.
2. On the Standard toolbar, click the **Replica Integrity Testing** button, or right-click the Replica and select **Replica Integrity Testing** from the shortcut menu.

The Replica Integrity Testing for Assured dialog opens.



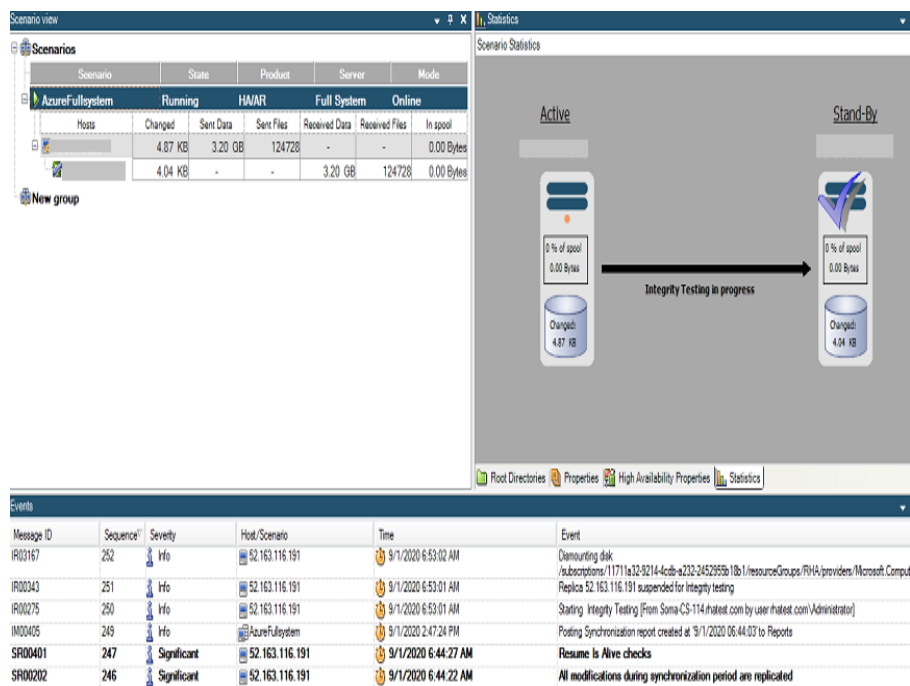
3. To start automatic AR test using the existing configuration, click **OK**.

### Notes:



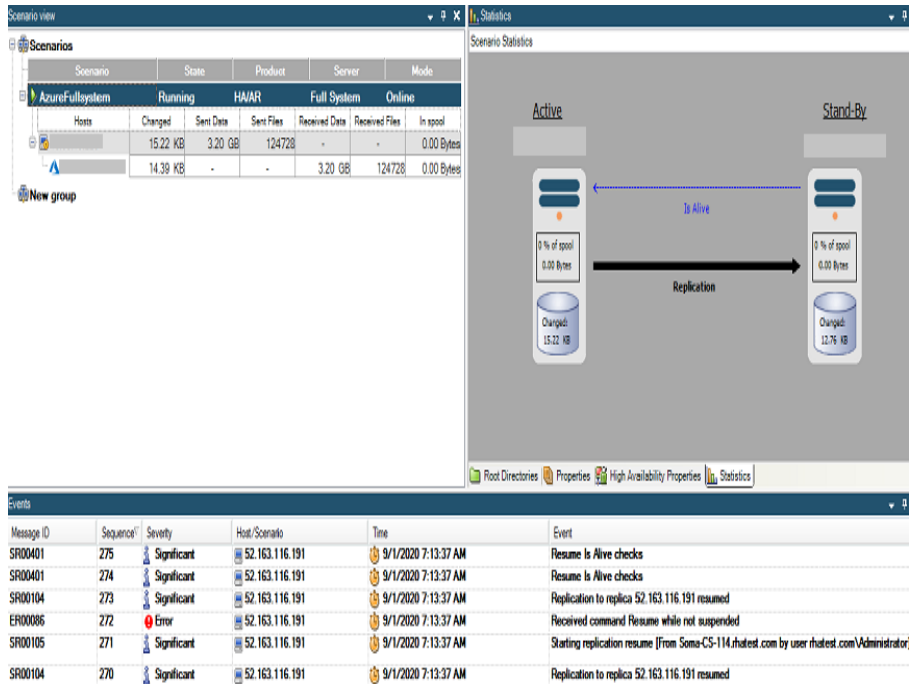
- To start the AR test manually, select the **Manual testing** checkbox, and then click **OK**.
- To change the test configuration before running the test, click **Cancel**. For more information, see [Configure Assured Recovery Properties](#).
- Before the test begins to run, Arcserve Live Migration verifies that no synchronization, AR test or replication suspension tasks are in progress on any of the hosts that participate in the current scenario.

After the verification completes, the AR test begins.



The steps of the test are displayed as messages in the Event pane.

After the test is finished, the Replica is automatically restored to the same state it was when the replication was suspended. The changes that were accumulated in the pool gets applied, and the replication resumes.



By default, after the AR test is performed, an Assured Recovery Report is generated.

### Notes:

- If the Assured Recovery Report is not generated, on the Replica Properties list, under the Reports group, check the value of the Generate Assured Recovery Report property.
- To view the report, see [View a Report](#).

All the tasks that were performed during the AR test are listed in the AR Report, along with their activation time and status.

## Perform Cut off/Switchover

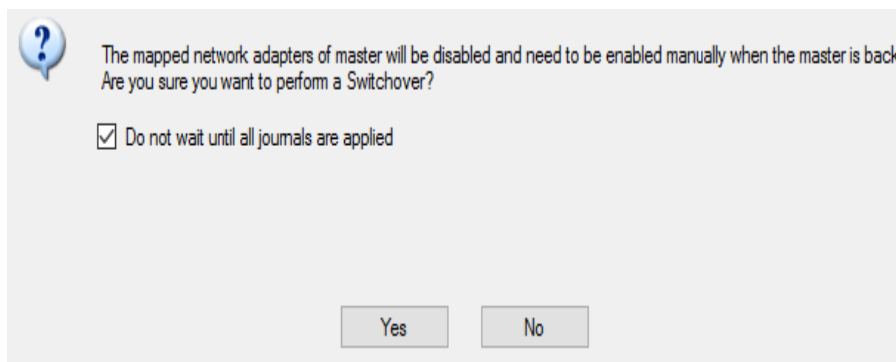
Switchover (or failover) is the process of changing roles between the Master and Replica, that is, making the Master server the standby server, and the Replica server the active server.

Switchover can be triggered automatically by Arcserve Live Migration when it detects that the Master is unavailable (failover). Alternatively, Arcserve Live Migration can simply alert you to the problem, and then you can manually initiate switchover from the Manager.

### Follow these steps:

1. Open the Manager and then select the required scenario from the Scenario pane. Verify if it is running.
2. On the standard toolbar, click the **Perform Switchover** button, or select the Perform Switchover option from the **Tools** menu.

A confirmation message appears.



3. [Optional] Select the **Do not wait until all journals are applied** check box to immediately perform switchover even before all journals are applied. If you do not select this check box, the switchover process gets initiated only after all journals are applied.
4. Click **Yes** on the confirmation message. This procedure initiates a switchover from the Master server to the Replica server.

During switchover, the Event pane gives detailed information about the switchover process.

**Scenario view**

| Scenario        | State      | Product | Server      | Mode   |
|-----------------|------------|---------|-------------|--------|
| AzureFullSystem | Switchover | HA/AR   | Full System | Online |

**Statistics**

Scenario Statistics

Active Stand-By

Switchover in progress

**Events**

| Message ID | Sequence | Severity    | Host/Scenario  | Time                | Event                                                                                                           |
|------------|----------|-------------|----------------|---------------------|-----------------------------------------------------------------------------------------------------------------|
| SR00402    | 278      | Significant | 52.163.116.191 | 9/1/2020 7:14:44 AM | Supplement to Alive checks                                                                                      |
| SR00182    | 277      | Significant | 10.60.15.228   | 9/1/2020 3:17:09 PM | The mapped network adapters of master will be disabled and need to be enabled manually when the master is back. |
| SR00181    | 276      | Significant | 10.60.15.228   | 9/1/2020 3:17:09 PM | Starting switchover procedures (From Soma-CS-114.rhctest.com by user rhctest.com\Administrator)                 |
| SR00401    | 275      | Significant | 52.163.116.191 | 9/1/2020 7:13:37 AM | Resume to Alive checks                                                                                          |
| SR00401    | 274      | Significant | 52.163.116.191 | 9/1/2020 7:13:37 AM | Resume to Alive checks                                                                                          |
| SR00104    | 273      | Significant | 52.163.116.191 | 9/1/2020 7:13:37 AM | Replication to replica 52.163.116.191 resumed                                                                   |

After the switchover is complete, the scenario gets stopped.

**Note:** The only case in which the scenario may continue to run after switchover is when **automatic reverse replication** is defined as **Start automatically**.

When the switchover is completed, the Event pane displays the *Switchover completed* message.

**Scenario view**

| Scenario        | State         | Product | Server      | Mode   |
|-----------------|---------------|---------|-------------|--------|
| AzureFullSystem | Connecting... | HA/AR   | Full System | Online |

**High Availability Properties**

| Property                    | Value         |
|-----------------------------|---------------|
| Switchover                  | Connecting... |
| Hosts                       |               |
| Network Traffic Redirection |               |
| Is Alive                    |               |
| DB Management               |               |
| Action upon Success         |               |

**Events**

| Message ID | Sequence | Severity    | Host/Scenario  | Time                | Event                                                                                                                                                                       |
|------------|----------|-------------|----------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SR00320    | 297      | Significant | 52.163.116.191 | 9/1/2020 7:20:57 AM | Switchover completed. The Azure virtual machine with same name of master is currently active/subscriptions/117711a32-9214-4c0b-a232-2452955b1b01/resourceGroups/RHA/prov... |
| IR00620    | 296      | Info        | 52.163.116.191 | 9/1/2020 7:20:57 AM | The virtual machine is now online.                                                                                                                                          |
| IR00621    | 295      | Info        | 52.163.116.191 | 9/1/2020 7:20:41 AM | Checking the alive status of the virtual machine.                                                                                                                           |
| IR00297    | 294      | Info        | 52.163.116.191 | 9/1/2020 7:20:41 AM | Enable Full System resources successfully                                                                                                                                   |
| IR03195    | 293      | Info        | 52.163.116.191 | 9/1/2020 7:20:41 AM | Successfully created virtual machine /subscriptions/117711a32-9214-4c0b-a232-2452955b1b01/resourceGroups/RHA/providers/Microsoft.Compute...                                 |
| IR03167    | 292      | Info        | 52.163.116.191 | 9/1/2020 7:20:27 AM | Demounting disk                                                                                                                                                             |

Now, the original Master becomes the Replica, and the original Replica becomes the Master.

